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ECONOMIC BASE/ EMPLOYMENT OPPORTUNITIES

Executive Summary

prepared for

City of San Francisco

prepared by

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2740 Sand Hill Road
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SUMMARY

This study, one of a series of special studies, was commissioned to explore employment opportunities offered by the Mission Bay development in the context of a changing business environment. In particular, IFTF was asked to look at employment opportunities in all business sectors and investigate these specific sectors that had the most positive potential for Mission Bay. In addition, special attention was to be given to two categories of uses: "back-office space" and research and development. "Back-office space" is of particular interest to the City of San Francisco in the light of the loss of more than 10,000 back-office jobs to suburban centers in the early 1980s. Research and development was of interest because of the relative absence of such activity in San Francisco compared to the flourishing research and development centers in other parts of the Bay Area--in particular, Santa Clara and San Mateo counties. The study attempts to place Mission Bay's potential for these and other uses in a competitive context.

The study's findings can be summarized as follows:

STRATEGIC CONTEXT

A number of key signals of change in the San Francisco economy will affect employment opportunities in Mission Bay:

-- Enduring Strengths. San Francisco has enduring strengths as a strategic player in the Pacific Rim; as the natural center for regional headquarters and for specialized legal, financial, and business services for a dynamic northern California economy; as a premier tourist destination; and as a center for creative people. These factors support the growth of specialized, primarily office-based activities with a regional, import/export, or creative focus.

-- Transformation in Office Work. The changing structure of office activities and the relative stagnation of San Francisco's headquarters function will slow the rate of growth of office employment compared to the expansion in the 1970s.

-- Research and Development/Light Manufacturing. Attracting high-technology development is very competitive. San Francisco's best opportunities are in those areas where the city has some competitive advantage: applications-driven software design and biotechnology R&D. However, the number of new jobs in software and biotechnology will be limited, and the types of employment opportunities created by these research and development activities will not be primarily blue-collar or entry-level jobs. A much better opportunity for Mission Bay lies in its unique advantage in being able to accommodate mixed commercial use enterprises that value a close urban connection to downtown markets, support services, or the creative sector. Such enterprises could conceivably include headquarters, back office, light assembly/packaging, and distribution in the same complex.

OPPORTUNITIES FOR MISSION BAY

Mission Bay represents a unique opportunity to expand and diversify San Francisco's employment base. The strengths of Mission Bay's location and the competitive market niches it could realistically serve would help:

-- Draw new jobs to the city by providing mixed commercial use opportunities in San Francisco

-- Provide an alternative competitive "back-office" location for firms considering relocation

-- Allow San Francisco firms to consolidate inefficient uses of space and thereby open possibilities in other areas of the city

-- Absorb a share of the growth in new enterprises

-- Assure that a diversity of employment opportunities is available within the city.

STRATEGIC CONTEXT: SIGNALS FOR CHANGE

San Francisco as a center of economic activity is affected by the changing national and international economic scene. From our analysis of the changing context, four key themes are evident.

TRANSFORMATION OF OFFICE WORK

For more than three decades there has been a steady increase in the share of workers in the United States who work in offices. Even in manufacturing and mining--the traditional goods-producing sector--the share of office workers has increased consistently over the past three decades. This situation has reached a significant breakpoint. In 1986, for the first time, the share of office work in mining and manufacturing began to decline. This change is not simply the payoffs from increasing office automation; rather, it represents the first signs of a cutback in white-collar employees. Further within the white-collar sector, there is also a new trend: companies are beginning to trim more management and professional staff rather than clerical workers. The implications for San Francisco are clear: one cannot assume that central office employment will continue to grow at the same rate as it has in the past.

The second major element of the transformation in office work that has implications for San Francisco and Mission Bay is the changing structure of headquarters (or command) functions. The raison d'etre for most of San Francisco's back offices has been to support the central headquarters activities of San Francisco-based firms. Chevron, Bank of America, and Pacific Bell have been the primary generators of back-office jobs in the city in the 1970s and the primary relocaters of back-office jobs to Contra Costa County in the 1980s.

A detailed analysis of San Francisco's headquarters functions raises some questions about the city's relative position in the national and international urban system. San Francisco's headquarters activity is beginning to stagnate for four reasons:

-- It has a small number of very large firms' headquarters. These firms are in industries that were very dynamic growers in the 1960s and 1970s and that are likely to be much less dynamic in the late 1980s and 1990s--in particular, oil and commercial banking.

-- San Francisco is losing its momentum as the premier West Coast financial center to Los Angeles. San Francisco is not capturing as large a share of Pacific Rim financial activity as is its southern California neighbor.

-- San Francisco is being hurt more than helped by mergers and acquisition. Corporate headquarters relocation often occurs following mergers, and this provides both a threat and an opportunity for cities involved. Recent and future merger activity is more likely to erode rather than strengthen San Francisco's headquarters functions.

-- San Francisco lacks the medium-sized firms that have growth potential to be corporate heavyweights in the next century. Of the Bay Area 100, San Francisco has 10 of the top 14 firms but only 16 of the next 86. Mission Bay can play a role as a location for such medium-sized headquarters.

Overall, the transformation of office work and the changing role of San Francisco's headquarters are likely to reduce the rate of increase in office work. However, there are opportunities for San Francisco to attract the medium-sized headquarters that will play a major role in the next century. Mission Bay can play an important role as a competitive location for new regional headquarters functions by offering flexibility in mixed commercial use and by providing medium-sized firms with a San Francisco address of their own.

SAN FRANCISCO'S ENDURING STRENGTHS

On the positive side, San Francisco has a number of enduring strengths that will bolster the outlook for economic activity in the city. First, the city is geographically well placed to benefit from Pacific Rim growth and the resulting flows of goods, capital, and immigrants. Although Los Angeles and other West Coast cities are emerging as more important beachheads for Pacific Rim activity, San Francisco will continue to derive an increasing amount of benefit from the Pacific Rim connection.

Second, San Francisco is the logical center for specialized services for the Bay Area and northern California. The overall region will continue to be a dynamic one, and San Francisco will benefit. In particular, the city's infrastructure and expertise in finance, legal, and specialized business services will continue to serve expanding regional markets and may attract dynamic northern California firms to locate national and international headquarters functions in the city.

Third, San Francisco is a premier city for "experiences": it is a prized destination for national and international tourism and convention activity, and it provides the surrounding Bay Area population with a range of cultural, artistic, and entertainment experiences that the suburbs cannot recreate. The city's potential for tourism coincides with a rising affluence and an increasing interest in travel and new experience nationally. These two forces will fuel the continued attraction of visitors and the economic activity that they generate.

Fourth, San Francisco has tremendous creative potential among its people. The city has provided an urban life-style that has attracted creative people in the arts, music, and fashion. These groups have fueled the birth of new forms of communications in video and print media, and these media will prove to be increasingly important commercial enterprises in the decades ahead. The creative group also is at the core of the renaissance of the California apparel business in both San Francisco and Los Angeles. The juxtaposition of immigrant labor and entrepreneurs with creative design people in a fashion-conscious urban context has produced successful and competitive domestic manufacturing capability despite a national decline in the apparel industry.

In combination, these enduring strengths support growth in San Francisco's employment in finance, legal, and specialized business services serving the dynamic northern California region and in those functions that draw on the creative strengths of San Francisco.

RESEARCH AND DEVELOPMENT/LIGHT MANUFACTURING

A clear challenge for any city is replacing the traditional well-paid skilled and semiskilled craft work that central cities once offered but that have been displaced through technological and organizational change. San Francisco, like other cities, has witnessed a steady long-term decline in manufacturing and maritime functions as a result of these changes. In an effort to recreate these jobs, cities and regions have embraced high technology as a means of revitalizing the goods-producing sector and recreating the skilled jobs these firms are perceived to generate.

The quest for high technology is universal. Every state, region, and city has to a greater or lesser extent targeted these activities as potential additions to its economic base. The Bay Area, in general, and Silicon Valley, in particular, is regarded as the prototype these others seek to emulate. The result is more locations and more space offered to R&D uses. However, simply building clean-looking warehouses and calling them R&D space does not in itself generate new high-technology work. Even in the established centers of high technology, such as Silicon Valley, an oversupply of such space is clearly evident.

Silicon Valley has achieved a critical mass of R&D activities over a long period of time. Decisions to decentralize such activity have tended to involve the establishment of Silicon Valley outposts--campus-like settings beyond the metropolitan fringe--for example, Santa Rosa, California, and Corvallis, Oregon. High-technology firms and their workers tend not to select inner city locations.

San Francisco's attraction for R&D activity and related light industrial work must then come from its unique advantages. Our analysis indicates that the two best candidates are software design--where the city provides the clientele and connections for what will increasingly be an applications-driven industry (legal, medical, financial, and government)--and, potentially, biotechnology--where UCSF has given the city some locational advantage through its research work. Neither of these two R&D functions is likely to require large amounts of R&D-type space. On the one hand, software development and even production more closely resemble office work. On the other, biotechnology research is a laboratory function, but production on a larger scale might not be best suited to a mixed-use commercial and housing project.

Thus, doubt exists about the degree to which San Francisco in general and Mission Bay in particular can take a significant share of a very competitive R&D market. However, there are potential attributes of Mission Bay that can make it attractive for light industrial uses. The ability of the site to accommodate innovative configurations of headquarters, back office and subassembly or distribution activity offers some unique potential in the city. Firms such as Esprit (in the apparel sector) or regional branches of U.S. or foreign firms selling and distributing business products to a downtown market could be accommodated on the site. Such mixed-use tenants may be uniquely attracted to the combination of proximity and flexibility at competitive costs that Mission Bay could offer.

A key role for Mission Bay in supporting light industrial and distribution activity in the city is in its ability to relieve pressure on other areas of San Francisco that can provide incubator niches for such functions as small-volume apparel or printing operations.

On balance, however, it seems unlikely that a large proportion of Mission Bay jobs will be generated in true R&D types of activity. It is much more likely that the R&D space will accommodate assembly, packaging, and distribution functions of multi-use tenants.

DIVERSE EMPLOYMENT

San Francisco has many strengths relative to neighboring communities in many white-collar activities. It seems to have few in the manufacturing sector. But these factors should not hinder the maintenance of a diverse employment base in the city. Sixty percent of all blue-collar jobs in the United States are in nonmanufacturing activities. Heavy concentrations of blue-collar activities can be found in construction, wholesale and retail trade, services, and transportation/communication. These types of activities will flourish in a San Francisco where the office sector is healthy, where regional business and commercial activities are centered, and where tourism and convention business is strong.

OTHER CONSIDERATIONS

Three final considerations affect the overall context of Mission Bay's development and the assumptions underlying our forecasts. The first is that the City and County of San Francisco is uniquely constrained in its political geography when compared to Los Angeles or San Diego. The restricted land area (about a tenth of the City of Los Angeles) and the density of population and activity limit the physical expansion of San Francisco's development and increases the politicization of decisions about that development. Secondly, our forecasts for Mission Bay assume no new major port activity for the site. However, Mission Bay's waterfront location is bound to play a positive role in enhancing the environment for office, commercial, and housing uses. A third consideration is the impact of tax reform. If real estate incentives are altered through the current tax reform bill, suburban office development may be much less attractive to investors.

This could further improve the competitive position of Mission Bay in the 1990s and beyond. Finally, and perhaps most important, the forecasts for San Francisco are predicated on the assumption that the Mission Bay development as it has been broadly defined exists and is playing a viable role in the city by the year 2000. The basic purpose of this study is to assess what role it might play in the city and how it will contribute to diversified employment opportunities in San Francisco.

MISSION BAY: POTENTIAL STRATEGIES

Mission Bay represents a unique opportunity for San Francisco as the last major site that presents potential for a unique form of mixed commercial use. The purpose of this section is to identify the kinds of markets that Mission Bay might be positioned to serve, the competitors in those market niches, and the particular strengths of Mission Bay that would give its offices and R&D space a competitive advantage. The section focuses on two particular competitive factors--cost and location--relative to other sites in the Bay Area.

MISSION BAY: POSSIBLE POSITIONING

Mission Bay's office and R&D development has to make sense for the city and its people, the developers, and the market. It has not been conceived of as an alternative downtown core, nor is it feasible that office space be made available at below market prices. Somewhere in between is a range of potential market opportunities. The ultimate employment composition of Mission Bay will reflect the market's response to the final agreed upon development.

With this caveat in mind, Table 1 focuses on the cost component and identifies a range of competitive rent structures for office space. The purpose of these data is to identify the relative rental rates in locations that are viewed as realistic competitors for Mission Bay. In preparing this data series, we have endeavored to smooth out some of the short-term business cycle fluctuations in rental rates and represent the relative costs as an index against downtown San Francisco. The intent is to present the enduring relativities in the marketplace; however, it is clear that when certain downtown space reaches a particular dollar ceiling or floor, these relativities may be upset. For example, as the market declines, price compression is likely to occur as the relative rental rates get squeezed against the fixed cost at the low end of the market. Conversely, at the high end of the market cycle, prime downtown space can charge premium prices that may again alter the relativity of these rates. Nevertheless, these are the best estimates of enduring competitive relationships.*

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*We are indebted to Margaret Duskin, Senior Vice President of Cushman Wakefield, and her associates for their comments, additions, and revisions to our original market estimates.

Table 1

Bay Area Rent Structure

Relative Positioning of Mission Bay	Competitor	Rental Index
Prime Office	San Francisco Prime Downtown	100
	Palo Alto	90
	South of Market (Prime)	83
	Oakland Prime Downtown	83
	San Jose Downtown	83
	North Sunnyvale	83
	Van Ness Corridor	80
	San Jose Airport	80
	Walnut Creek (near BART)	77
Higher Quality Office	Sacramento (near Capitol)	73
	China Basin	66
	East San Jose	63
	South Sunnyvale	63
	Northeast San Jose	63
Medium Range	South of Market (Nonprime)	60
	Sierra Point, Brisbane	60
	Oyster Point, Brisbane	60
	Walnut Creek (other)	60
	Concord	60
	South San Jose	60
	Northwest San Jose	60
	San Ramon	53
	Pleasanton	53
Lower End	Fresno	41
	Fremont	37
	Sacramento (other)	35
	Outer Fringes of the Bay Area (Gilroy, Santa Rosa, Petaluma, Tracy, and Fairfield)	35

Source: IFTF, Cushman Wakefield.

For purposes of analysis, we have assumed that Mission Bay's office space could be positioned realistically anywhere on this range between 75% and 40% of prime downtown space. Similarly, R&D and light manufacturing space is likely to be between 40% and 25% of prime downtown office space. Perhaps the single most important opportunity for Mission Bay's employment base is the potential for unique configurations of physical space and commercial uses. For example, it is conceivable that a single tenant may be interested in occupying buildings that include headquarters, back office, packaging, or subassembly and distribution space in one complex. Such a tenant might occupy space across a wide spectrum of rental rates.

For the purposes of this analysis, the range of realistic alternatives is broken down into four subranges:

	Index
Higher quality office	60-75
Medium-range office space	50-60
Lower end office	40-50
Quality industrial/R&D	25-40

MISSION BAY: ADVANTAGES OF THE SITE

In terms of its locational attributes, Mission Bay has several competitive strengths over other San Francisco and Bay Area sites. For six different classes of activity, Mission Bay's main advantages are listed over five general locations: Prime South of Market, Contra Costa, Silicon Valley, San Mateo, and South Alameda (see Table 2).

Mission Bay has several key advantages for office uses over the more suburban locations. It can provide access to specialized financial, legal, and business services; to downtown clients; to the urban transportation network; and to a host of complementary activities. And it can do this at competitive costs. The only really salient advantage for R&D activity is its proximity to UCSF and Berkeley and to the city's business population for software applications.

Perhaps the strongest competitive characteristic of Mission Bay over other San Francisco locations is the capacity for the development to accommodate individual tenants with a need for both unique configurations of space (for example, combined headquarters, back office, and distribution space) and relative proximity to downtown San Francisco. The development also has advantages for those functions that still require some face-to-face meeting with other parts of the organization or with clients in downtown but that do not need prime downtown space.

Table 2

Mission Bay's Competitive Strengths

	Competitor				
Use	Prime South of Market	Contra Costa	Silicon Valley	San Mateo County	South Alameda
Business and Professional Services	Potential for lower rents for support services. Housing on site.	Proximity to downtown clients. Proximity to airport.	Proximity to clients (non-high-tech).	Proximity to downtown clients.	Proximity to downtown San Francisco clients.
Small-Medium Sized Headquarters	Potential for new "build-to-suit" headquarters.	Proximity to advanced corporate services. Proximity to international airport.	Proximity to financial community, legal, and business services.	Proximity to financial community and business services.	Proximity to financial community, legal, and business services.
Back Office	Larger floor areas. Lower rents. Better parking. Tied into peninsula and MUNI transit.	Proximity to company headquarters. Ability to tap San Francisco entry-level labor market. Tied into peninsula and MUNI transit.	Ability to tap San Francisco entry-level labor market. Existing front office in downtown.	Proximity to existing front office. Competitive rents.	Proximity to front office.
Other Support Services	Sales/service functions with distribution and office. Better parking. Freeway access.	Sales/service closer to downtown.	Close to concentration of client.	Close to heavy concentration of clients.	Close to concentration of clients.

.....continued

Table 2 (concluded)

Mission Bay's Competitive Strengths

	Competitor				
Use	Prime South of Market	Contra Costa	Silicon Valley	San Mateo County	South Alameda
Unique, Mixed Space Tenants	Capacity to accommodate mixed commercial use tenants in innovative floor space configurations.	Proximity to downtown services, amenities. Proximity to airports.	Proximity to downtown services.	Proximity to downtown services, amenities.	Proximity to downtown services.
R&D	No real R&D space in South of Market.	Proximity to UCSF, Berkeley, and Stanford.	Proximity to UCSF and Berkeley.	Proximity to UCSF and Berkeley.	Proximity to UCSF.

EMPLOYMENT AND OCCUPATIONAL OPPORTUNITIES

It is impossible to examine every conceivable type of job that could locate in Mission Bay over the build out of the project (which for the purposes of this analysis we have assumed to be 2000 although the likely completion would be between 2000 and 2010). The possibilities for sizes and ranges of business by type of development in Mission Bay give too large a selection. Instead of trying to be comprehensive, we have selected businesses that are likely to flourish at the national, regional, and city level and examined the likely employment outlook for each of those businesses. We then identified those segments that are likely to be best suited for drawing on the unique advantages of Mission Bay.

Table 3 summarizes our forecast for Mission Bay employment in specific business segments. For each segment, we have identified a likely range of total employment in the city through the year 2000, made a realistic assessment of a Mission Bay employment range within that business segment, and described the type of activities within that business segment that will occur in Mission Bay. Table 3 is a listing of opportunities by specific business sector. It is meant to identify the range of opportunities available. It is not meant to be strictly additive. In other words, the development could not support the maximum in each and every category. Rather, these ranges represent a lower and upper limit if a reasonable marketing effort was made to attract these kinds of uses. It also is not meant to be comprehensive in that the analysis does not include some sectors that may provide jobs--retail, repair services, and so forth. And it is based on the assumption that an attempt will be made to draw varying types of users from many sectors. It is best to see this table as illustrative of the type of space uses possible in Mission Bay.

Table 3

Employment Opportunities in Mission Bay

1. Higher Quality Office Space
(Rental Index: 60% to 75% of Prime Downtown)

Business Sector	Jobs in San Francisco by 2000	Range of Employment in Mission Bay	Likely Types of Activities in Mission Bay
Legal	25,800-27,300	2,000-3,000	-- Small and medium-sized firms serving area and regional clients. -- Possible emergence of back office functions for larger specialized downtown firms.
Miscellaneous Services	25,000-26,700	500-800	-- Firms focusing on regional business in architectural, engineering, and environmental impact studies. -- Medium-sized accounting and bookkeeping firms serving a regional clientele. -- Small CPA and tax consultants.
Finance	82,200-87,400	300-500	-- Regional headquarters for medium-sized local banks and S&Ls. -- Regional headquarters for second-tier foreign or out-of-state banks that want a foothold in northern California. -- Venture capital headquarters.
Wholesale Trade	36,200-37,000	200-300	-- Offices for U.S. import-export brokers. -- Offices for foreign trade representatives or foreign sales offices.
Business Services (partial: includes advertising, personnel supply, and part of miscellaneous business services)	25,800-38,000	1,750-2,350	-- Medium-sized firms doing business with downtown and Bay Area customers in a variety of business services including advertising, management consulting, design, agent or broker, personnel supply.

Table 3 (continued)

Employment Opportunities in Mission Bay

2. Medium-Range Office Space
(Rental Index: 50% to 60% of Prime Downtown)

Business Sector	Jobs in San Francisco by 2000	Range of Employment in Mission Bay	Likely Types of Activities in Mission Bay
Transportation, Utilities, Communications, Mining, and Manufacturing	Not applicable	600-1,000	-- Regional or national headquarters of rapidly growing Bay Area-based firms. -- Regional headquarters for a national firm. -- Alternate site for specific corporate functions of a large company--finance, advertising, planning.
Finance	82,200-87,400	1,350-2,050	-- Software design and modification. -- Central control functions (like credit/loan approval) for a group of bank or S&L branches. -- Security brokers and sales departments.
Business Services (partial: includes part of data processing, news syndicates)	11,050-11,700	400-600	-- Software design and modification, maintaining existing systems. -- Services providing news to diversified clientele.
Research and Development	3,740-4,380	200-300	-- R&D activities in software development serving San Francisco clients.
Communications	16,900-18,300	50-150	-- Firms providing new communication services such as teleservices and video conferencing.
Wholesale	36,200-37,000	200-400	-- Local or regional sales offices for national firms.

Table 3 (continued)

Employment Opportunities in Mission Bay

3. Lower End Office Market
(Rental Index: 40% to 50% of Prime Downtown)

Business Sector	Jobs in San Francisco by 2000	Range of Employment in Mission Bay	Likely Types of Activities in Mission Bay
Finance, Medical, Utilities, Government	Not available	2,500-4,700	-- Record keeping. -- Claims processing. -- Customer inquiries.
Retail	Not applicable	600-950	-- Discount center outlets. -- Direct marketing.
Business Services (partial: includes part of data processing, mailing and reproduction, credit reporting, and miscellaneous buisness services)	30,648-32,500	3,150-4,850	-- New shops that do design, reproduction, and distribution of everything from mailers and newsletters to corporate brochures. -- Data processing services to big customers. -- Protection services. -- Equipment leasing/renting. -- Commercial testing. -- Travel/convention services. -- Telephone answering services.
Individual Proprietors	40,000-42,500	2,000-3,000	-- Individuals or partners in various activities like law, business services, consulting, word processing, design, and art.

Table 3 (concluded)

Employment Opportunities in Mission Bay

4. Quality Industrial or R&D
(Rental Index: 25% to 40% of Prime Downtown)

Business Sector	Jobs in San Francisco by 2000	Range of Employment in Mission Bay	Likely Types of Activities in Mission Bay
Manufacturing (partial: includes printing and apparel)	21,300-22,500	800-1,500	-- Printing and Graphics. -- Apparel.
Research and Development*	Not available	50-300	-- R&D activities in biotechnology and medical instrumentation.

*An additional 100-200 applications software R&D employees are indicated in medium-range office space on page 15. The biotechnology employment opportunities are limited because of severe competition, not only from other Bay Area locations but from well-eestablished state-sponsored biotechnology centers elsewhere in the United States.

Source: IFTF, based on California Employment Development Department historical data.

Even though it is only a partial look at employment opportunities, there are several important conclusions that can be drawn from Table 3. In these selected businesses, there is a full range of employment opportunities, spanning both the higher and middle-level office space market and the lower end office and R&D uses.

Another way of looking at the employment opportunities is to measure them against their impact on jobs in the rest of the city. Mission Bay can play four important roles in maintaining and diversifying San Francisco's economic base. First, the development can attract new businesses through its competitive advantages that would not otherwise locate in the city--for example, regional headquarters and research and development. Second, Mission Bay can prevent some loss of jobs to the suburbs by providing a competitive alternative within San Francisco. Third, Mission Bay can provide a location for San Francisco firms to consolidate their functions from inefficient space elsewhere in the city: lack of large floor plans has been an important factor behind many back-office relocations outside of the city. Fourth, the development can play a role in absorbing new growth in the city in those businesses that value the cost and locational attributes of Mission Bay. Using this classification, Table 4 defines the likely sources of the jobs outlined in Table 3. More than 60% of Mission Bay employment is likely to come from growth in businesses already flourishing in San Francisco and over 20% from businesses that are not currently in San Francisco. The rest of the jobs will come from preventing outflow to the suburbs or from freeing up space that is currently being inefficiently utilized.

Table 4

Sources for Employment in Mission Bay

	Employment Opportunities
Attraction of new businesses	1,400-2,600
Finance: regional headquarters central control functions	
Manufacturing: regional headquarters	
Retail: direct marketing	
Manufacturing: R&D activities	
Prevention of loss of jobs to suburbs	3,375-5,900
Transportation/communication/utilities	
Manufacturing/mining: back-office functions	
Finance: data processing claims processing customer service	
Manufacturing: light industry activities	
Consolidation of existing services in poorly used space	1,000-2,000
Finance/medical/utilities/government: record keeping, claims claims processing customer inquiries	
Absorption of new growth	10,875-16,250
Legal: small/medium-sized firms	
Miscellaneous professional services: regional professional firms	
Business services: advertising management consulting personnel supply computer maintenance credit reporting miscellaneous business services mailing and reproduction	
Wholesale: import/export brokers	
Finance: security dealers/brokers	
Individual proprietors:	

Source: IFTF

Occupational Distribution of Mission Bay Employment

Tables 5 and 6 identify the occupational mix derived from the primary employment opportunities in the selected business opportunities. These employment opportunities noted here are heavily weighted toward white-collar occupations. That is because we have focused on those types of jobs that are most likely to be attracted to San Francisco's urban core in competition with other locations in and around the Bay Area. These jobs reflect San Francisco's strengths vis-a-vis other communities. They do create, though, a set of secondary jobs that are blue-collar in nature. These secondary jobs include many blue-collar jobs servicing the new office sector in Mission Bay including repair, delivery, protection, wholesale and retail trade, and public transportation. Some of these blue-collar activities will be provided by firms located inside of Mission Bay. A greater portion is likely to be provided by firms on the periphery: in the upper south of Market, Potrero Hill, or south of Sixteenth Street. The full employment impact on the city of San Francisco of Mission Bay can't be assessed without taking these neighboring effects into account.

Finally, the attraction of certain types of office activities to Mission Bay will free more low-cost, "under-the-freeway" type of space for the dynamic small printing and apparel companies that currently are thriving in the South of Market, Chinatown, and the Tenderloin. Thus, the development pattern of Mission Bay can have an important impact on the occupational pattern of employment developments elsewhere in the city.

Table 5

Occupational Outlook in Key Business Sectors

(Percent of Employment)

Occupations*	High-End Office Market	Mid-Range Office Market	Low-End Office Market	Quality Industrial
Managers and Officers	9.7	12.9	14.2	6.4
Professional Occupations	40.0	19.5	28.0	9.4
Technical Occupations	4.9	14.3	9.3	2.7
Sales Workers	1.6	8.2	5.3	4.2
Service Occupations	0.7	2.4	0.9	7.7
Production Occupations	0.5	3.7	3.6	54.2
Administrative Support and Clerical	42.6	39.0	38.7	15.4
	100.0	100.0	100.0	100.0

*This is exclusive of retail and service employment supporting the residential and commercial occupants of Mission Bay.

Source: IFTF, based on California Employment Development Department's Occupations in Selected Industries.

Table 6

Range of Employment by Occupational Mix in Key Business Sectors

Occupations*	High-End Office Market	Mid-Range Office Market	Low-End Office Market	Quality Industrial
Managers and Officers	461-674	361-580	1,172-1,917	54-115
Professional Occupations	1,900-2,780	546-877	2,310-3,780	80-169
Technical Occupations	233-341	400-644	767-1,255	23-49
Sales Workers	76-111	230-369	437-716	36-76
Service Occupations	33-49	67-108	74-122	65-139
Production Occupations	24-35	104-167	297-486	461-976
Administrative Support and Clerical	2,023-2,960	1,092-1,775	3,193-5,224	131-276

*This is exclusive of retail and service employment supporting the residential and commercial occupants of Mission Bay.

Source: IFTF, based on California Employment Development Department's Occupations in Selected Industries.

ECONOMIC BASE/ EMPLOYMENT OPPORTUNITIES

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SUMMARY

SUMMARY

This study, one of a series of special studies, was commissioned to explore employment opportunities offered by the Mission Bay development in the context of a changing business environment. In particular, IFTF was asked to look at employment opportunities in all business sectors and investigate these specific sectors that had the most positive potential for Mission Bay. In addition, special attention was to be given to two categories of uses: "back-office space" and research and development. "Back-office space" is of particular interest to the City of San Francisco in the light of the loss of more than 10,000 back-office jobs to suburban centers in the early 1980s. Research and development was of interest because of the relative absence of such activity in San Francisco compared to the flourishing research and development centers in other parts of the Bay Area--in particular, Santa Clara and San Mateo counties. The study attempts to place Mission Bay's potential for these and other uses in a competitive context.

The study's findings can be summarized as follows:

STRATEGIC CONTEXT

A number of key signals of change in the San Francisco economy will affect employment opportunities in Mission Bay:

-- Enduring Strengths. San Francisco has enduring strengths as a strategic player in the Pacific Rim; as the natural center for regional headquarters and for specialized legal, financial, and business services for a dynamic northern California economy; as a premier tourist destination; and as a center for creative people. These factors support the growth of specialized, primarily office-based activities with a regional, import/export, or creative focus.

-- Transformation in Office Work. The changing structure of office activities and the relative stagnation of San Francisco's headquarters function will slow the rate of growth of office employment compared to the expansion in the 1970s.

- Research and Development/Light Manufacturing. Attracting high-technology development is very competitive. San Francisco's best opportunities are in those areas where the city has some competitive advantage: applications-driven software design and biotechnology R&D. However, the number of new jobs in software and biotechnology will be limited, and the types of employment opportunities created by these research and development activities will not be primarily blue-collar or entry-level jobs. A much better opportunity for Mission Bay lies in its unique advantage in being able to accommodate mixed commercial use enterprises that value a close urban connection to downtown markets, support services, or the creative sector. Such enterprises could conceivably include headquarters, back office, light assembly/packaging, and distribution in the same complex.

OPPORTUNITIES FOR MISSION BAY

Mission Bay represents a unique opportunity to expand and diversify San Francisco's employment base. The strengths of Mission Bay's location and the competitive market niches it could realistically serve would help:

- Draw new jobs to the city by providing mixed commercial use opportunities in San Francisco
- Provide an alternative competitive "back-office" location for firms considering relocation
- Allow San Francisco firms to consolidate inefficient uses of space and thereby open possibilities in other areas of the city
- Absorb a share of the growth in new enterprises
- Assure that a diversity of employment opportunities is available within the city.

INTRODUCTION

INTRODUCTION

The following report outlines the critical assumptions, presents the supporting data, and describes our conclusions about employment in Mission Bay. This report is divided into three main parts. Part 1, "Setting the Context," describes ten key environmental trends that are critical to understanding future employment changes in the city of San Francisco. These trends set a context for the type of jobs that are likely to be found in Mission Bay.

Part 2, "Business Analysis," examines the employment outlook in a sizable group of business sectors (defined at the two-, three- and four-digit Standard Industrial Classification code level). These business sectors have been chosen because they represent the industries that have been, or might be, the most dynamic providers of new jobs in San Francisco or in other urban contexts.

Part 3 looks in detail at the strengths and weaknesses of the Mission Bay site relative to other sites that might compete for the types of activities described in Parts 1 and 2. It also identifies the likely range of employment opportunities in each business sector and looks at the occupational implications of each.

PART 1

SETTING THE CONTEXT:
SIGNALS FOR THE FUTURE

This section examines the strategic context in which the Mission Bay development will take place. It concentrates on the key factors and forces that will influence employment in San Francisco in general and Mission Bay in particular. Ten interrelated factors and forces are discussed:

- The changing role of white-collar work
- San Francisco as a national and international headquarters city
- The Pacific Rim opportunity
- Tourism and convention activity
- San Francisco as the Bay Area center
- San Francisco's enduring strengths in financial, legal, and creative activities
- R&D in its regional and national context
- The outlook for blue-collar employment
- Maritime functions
- The political geography of the Bay Area.

In total, these factors and forces set the economic and employment context for Mission Bay development. Some of these factors are acting to increase employment opportunities; others are acting to decrease employment opportunities. In total, they represent signals for the future that suggest San Francisco will face a different set of threats and opportunities than it has in the past.

IS AMERICAN BUSINESS DISILLUSIONED WITH WHITE-COLLAR WORKERS?

The proportion of all employees who work in office work tasks has increased steadily over the past few decades. This has been true not only in the growth of white-collar activities like health care and professional services, but in the changing composition of the traditional production sectors like mining and manufacturing. Signs are emerging which indicate that this trend may be coming to an end, especially in the manufacturing sector.

THE WHITE-COLLAR EXPLOSION

Between 1960 and 1985, the share of white-collar workers in the manufacturing sector grew from 24% to 30% of the total (see Table 1). This growth in share was a reflection of several key drivers: a substantial increase in value-added per product in the United States which meant more production support personnel; new technologies that enhanced the output per production worker; the expansion of many central office functions--marketing, finance, legal, human resources--as firms moved from local to national or international markets; and the growth of government regulation and its concomitant monitoring and reporting activities.

Table 1
Types of Workers in U.S. Manufacturing
(Millions)

	1960	1985
Production	5.6	5.5
White-collar	1.8	2.3
	7.4	7.8

Source: U.S. Department of Labor, Employment and Earnings.

Further, the dynamics of the labor market encouraged the growth of the white-collar labor force. Between the early 1960s and the early 1980s, the baby-boom generation came of age leading to a rapid expansion of young people entering the labor force. At the same time, women's labor force participation rates rose dramatically over the period. The combination produced very rapid increases in labor force growth rates (see Table 2). One other characteristic of this baby-boom cohort was key. They were the first generation to be college-educated in mass. At least half of the group had some college experience. The huge increase in numbers of educated workers pushed wages down--real hourly earnings fell between 1970 and 1983--while the more educated, more female working force sought jobs in the office sector. For managers and entrepreneurs, all the economic incentives pushed toward maximizing the utilization of well-educated white-collar labor.

Table 2

Labor Force Growth

(Annual Average Percent Increase)

1961-65	1.5
1966-70	2.1
1971-75	2.4
1976-80	2.7
1981-85	2.0

Source: U.S. Department of Labor, Monthly Labor Review.

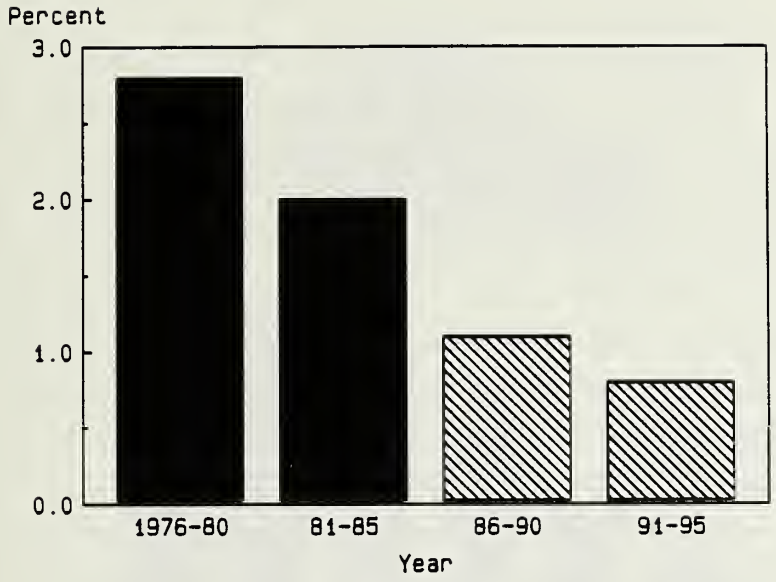
THE INCENTIVES CHANGE

In the last few years, fundamental economic forces have begun to change. With the maturing of the baby boomers and the slowing in the rate of increase in women's labor force participation rates, the growth in the labor force will slow dramatically in the future (see Figure 1). In the long run, real wages of white-collar workers will begin to rise.

Figure 1

Labor Force

(Average Annual Percent Growth)



In addition to the fundamental changes in the labor force, a new competitive climate is emerging in business. Foreign presence in the United States has doubled in U.S. markets in everything from imports through investments to direct operation of enterprises. New communication and information technologies, government deregulation of barriers to competition, and a profit squeeze are also increasing the pace and level of competition.

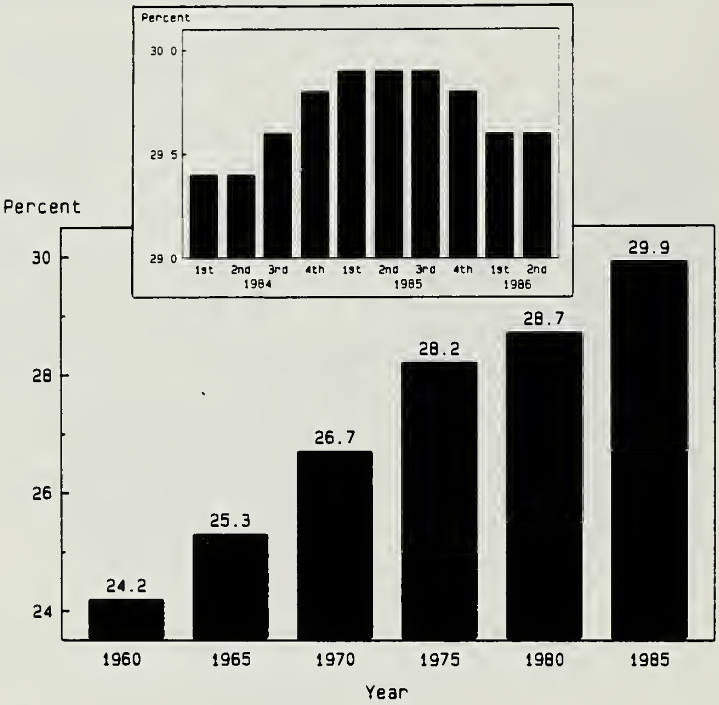
Business managers have responded to the profit squeeze by rethinking the role of white-collar workers. With deregulation and new information and communication technologies, managers are thinking of ways of cutting back on white-collar staff. Figure 2 shows that in the last year, the 25-year trend of increasing the share of white-collar employees in nondurable manufacturing has begun to reverse.

A significant aspect of the trend is that it is the higher levels of white-collar workers-- the managers and professionals--rather than the clerical and technical workers who are losing their jobs. Over the last year, professionals and managers share of all white-collar workers in nondurable manufacturing has fallen.

Figure 2

White-collar Workers in Nondurable Manufacturing

(Share of All Employees)



Source: U.S. Department of Labor, Employment and Earnings.

This trend toward cutting back on the role of white-collar workers in manufacturing is now well in place. Because it is driven by fundamental forces--lower new supply of workers, profit squeeze, competition for markets, new technologies, less demand for corporate service functions--we expect it will continue to play a prominent role in our economy over the next decade.

IMPACT ON SAN FRANCISCO

The change in U.S. manufacturing to stop the increasing reliance on white-collar workers, especially professionals and managers, will definitely affect the long-term employment outlook for San Francisco. The central office functions of manufacturing and mining firms (and others like transportation, utilities, communications) will be less dynamic providers of new employment growth in the future than they have been in the past.

SAN FRANCISCO AS A HEADQUARTERS CITY

One primary focus of this study is on employment opportunities in back office, R&D, and business services uses. Yet it is clear that these functions do not exist in a vaccuum. They are activities that support the headquarters or command functions of large-scale enterprises. To look at the future of back office and business services, it is necessary to look at San Francisco's relative position as a headquarters center--particularly its role as a headquarters city in the national and international context. Clearly, back offices can be the "back" of firms headquartered elsewhere: regional sales offices, regional support functions, and so forth. But, in the past, the Bay Area's back office functions have tended to be generated from the primary "command" office space in the city. It is also important to evaluate San Francisco's relative position as a national headquarters center because a city with only regional headquarters is not a San Francisco; it is a Spokane or an Albuquerque.

This section will identify how the Bay Area in general and San Francisco in particular have changed as national and international headquarters centers. These changes will be analyzed, and the outlook for San Francisco's command functions discussed.

COMMAND FUNCTIONS IN THE BAY AREA

The Fortune 500 and other Fortune rankings are useful representations of the changing corporate world. Although the listings deal with publicly held corporations and the companies may change category from Industrial 500 to Service 500 due to diversification, the Fortune ranking is still a reasonable basis for assessing the relative role individual cities and regions play in influencing corporate behavior. This is done by analyzing Fortune 500 sales, assets, or employment by location of headquarters.*

Using the Fortune 500 industrials as the unit of analysis, Figure 3 shows that Bay Area headquarters command a steadily increasing share of Fortune 500 sales, assets, and employment. However, the Bay Area's ascendancy up the hierarchy of corporate control has not been spread evenly across industries or across counties. For example, Figure 4 shows the relative share of the Fortune 500 Industrial assets controlled by three geographic areas--San Francisco City and County, Santa Clara County, and Other (primarily Alameda and San Mateo). Figure 5 shows a similar distribution for employment.

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*In particular, see J. D. Stephens and B. P. Holly, "City System Behavior and Corporate Influence: The Headquarters Location of U.S. Industrial Firms, 1955-1975," Urban Studies, 1981 (18), pp. 285-300.

Figure 3

Fortune 500 Sales, Assets, and Employees: Share Controlled by Bay Area Firms

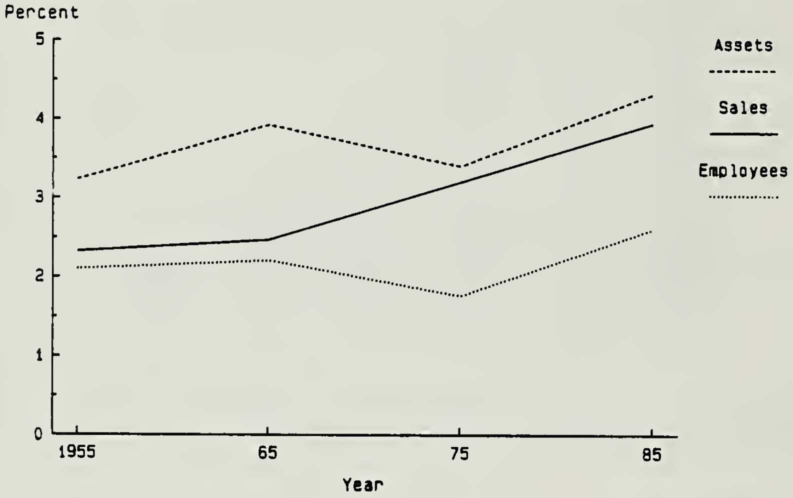


Figure 4

Fortune 500 Assets: Share Controlled by Bay Area Firms

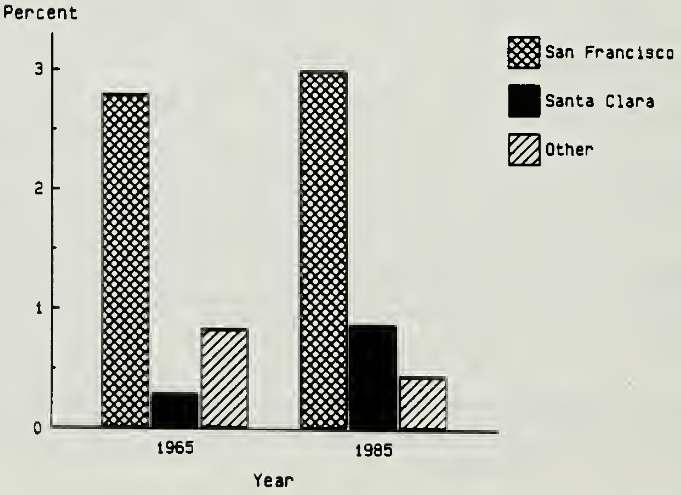
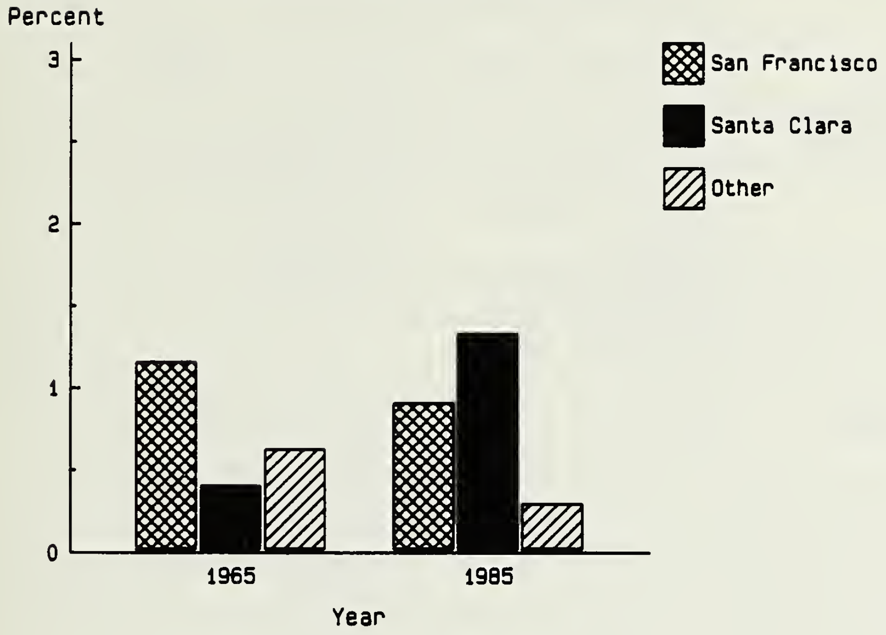


Figure 5

Fortune 500 Employees:
Share Controlled by Bay Area Firms



The data indicate that in terms of control of assets, San Francisco continues to command an increasing share of the Fortune 500. However, if measured in terms of total employees controlled, San Francisco headquartered firms command a smaller share in 1985 than in 1965 and have been surpassed by Santa Clara County as the center of industrial command functions in the Bay Area. A quick review of firm names (see Table 3) explains many of the dynamics shown in Figures 4 and 5. For example, between 1965 and 1985, Chevron increased its assets almost tenfold while its employment increased by 50%; this shift alone explains much of the difference in San Francisco's relative position in Figures 4 and 5. Similarly, the emergence of knowledge-intensive businesses in Santa Clara County has bolstered its share of Fortune 500 employees under its command. It is difficult to determine whether command over assets or employees is a better measure of corporate influence. But it is clear from the data that San Francisco plays a greater role in commanding industrial assets, whereas Santa Clara plays a greater role in commanding industrial employment.

Table 3

Bay Area Firms in the Fortune 500

	1965	1985
San Francisco	Standard Oil Crown Zellerbach California Packing Foremost Dairies DiGiorgio Potlatch Forests Kern County Land Fiberboard Paper	Chevron Crown Zellerbach Levi Strauss Potlatch Liquid Air C&H Sugar
Santa Clara	FMC Hewlett Packard	Hewlett Packard Apple Computer National Semiconductor Intel Varian Advanced Micro Devices Amdahl Tandem
Other	Kaiser Aluminum Kaiser Industries Kaiser Steel Ampex	Kaiser Aluminum & Chemical Alumax Clorox Raychem

Source: Fortune, June 1966 and June 1986.

THE CHANGING ROLE OF SAN FRANCISCO AS A HEADQUARTERS CITY

The pattern of development in any major city and the role that city plays in the system of cities is not solely determined by the city itself. Wider environmental changes can affect the relative position of a city often much more than the choices of its citizens. Once dynamic cities can stagnate and decline because they no longer occupy a position of importance in the new order--for example, Buffalo, Toledo, or Glasgow.

One critical factor in the long-term future of any city is the degree to which it plays a command role in contemporary and emerging enterprises. For example, over the past 20 years San Francisco has been home to giants of banking and oil; businesses that have grown substantially in the period. However, a more detailed analysis reveals some interesting points. Table 4 compares company listings for San Francisco from Fortune's 500 Industrials and Service firms in 1965 and 1985. Three key points are apparent from the table:

- With the exception of Chevron (Standard Oil of California), which grew by acquisition, all the industrial companies and commercial banks that have been headquartered in San Francisco for at least 20 years have fallen down the Fortune rankings.
- San Francisco has ceased to be a major center for commanding transportation companies. Firms have either moved (as in Consolidated Freightways' move to Palo Alto) or merged (as in Southern Pacific's merger of nonrail functions with Santa Fe).
- On the positive side, although San Francisco has lost firms, it has added new firms to its corporate headquarters roster in the diversified services and diversified financial sector--for example, Amfac (a diversified food processing, hospitality, development, and distribution organization); McKesson (a diversified drug and consumer products distributor); and Transamerica (a conglomerate of insurance and financial services subsidiaries). Other industrials such as Liquid Air (a subsidiary of a French firm) are U.S. national headquarters of large international concerns.

As the U.S. and international economy changes, so San Francisco's role has changed. The losses in maritime functions and the resources sector is to some extent more than compensated by the creation of new corporate entities that choose San Francisco as their base. The changing face of San Francisco's corporate leaders is shown in Table 5 where the growth of Bank of America and the regional divestitures of AT&T have added new command functions.

Table 4

San Francisco's Fortune Headquarters, 1965 and 1985

1965

Rank	Industrial - 500
17.	Standard Oil
96.	Crown Zellerbach
163.	California Packing
189.	Foremost Dairies
290.	DiGiorgio
369.	Kern County Land
430.	Fiberboard Paper
	Commercial Banks - 50
1.	Bank of America
11.	Wells Fargo
12.	Crocker
31.	Bank of California
	Life Insurance - 50

	Retailing - 50

	Transport - 50
2.	Southern Pacific
23.	Consolidated Freightways
36.	Matson Navigation
44.	American President Lines
	Utilities - 50
3.	PG&E
22.	Pacific Lighting

1985

Rank	Industrial - 500
7.	Chevron
128.	Crown Zellerbach
148.	Levi Strauss
316.	Potlatch
441.	Liquid Air
448.	C&H Sugar
	Commercial Banks - 100
2.	Bank of America
13.	Wells Fargo
25.	Crocker
77.	California First Bank
	Diversified Financial - 50
13.	Transamerica
43.	U.S. Leasing
	Savings - 50

	Retailing - 50

	Transport - 50

	Utilities - 50
5.	Pacific Telesis
7.	PG&E
	Diversified Services - 100
7.	McKesson
26.	Amfac
59.	DiGiorgio

Source: Fortune, June 1966 and June 1986.

Table 5

San Francisco's Top Five Fortune* Headquarters, 1965 and 1985

(Ranked by Total Employees Controlled)

1965		1985	
	Employees Controlled (Thousands)		Employees Controlled (Thousands)
Southern Pacific	45.4	Bank of America	83.3
Standard Oil	41.2	Pacific Telesis	71.5
Bank of America	29.1	Chevron	60.8
Crown Zellerbach	26.1	Levi Strauss	37.0
PG&E	21.0	PG&E	29.6
	162.8		282.2

*Includes both *Fortune* Industrials and Services.

Source: *Fortune*, June 1966 and June 1986.

But there may be some reason for concern. San Francisco cannot complacently expect a few large existing firms to maintain their relative position in the corporate hierarchy and be the sole source of headquarters functions. For example, Bank of America, Chevron, and privately held Bechtel have recently released substantial numbers of corporate managers and professionals. Such reorganization is not unique to these corporations but is part of a wider sea change from staff to line management, and from a strategic/corporate to a market/divisional orientation. Similarly, Wells Fargo and Crocker have recently merged and have made clear that the new organization will play a more prominent role in the rapidly expanding international banking community of Los Angeles (see Table 6). Finally, Pac Bell, Bank of America, Chevron, and others have made well-publicized moves of back office and other corporate functions to Contra Costa County. These changes suggest some stagnation if not decline in the command functions of the major established San Francisco corporations.

Table 6

Fortune's Commercial Banking 100:
Assets Controlled by Los Angeles and San Francisco

(Billions of Dollars)

	Los Angeles	San Francisco
1982	77.9	179.9
1985	112.1	172.5

Source: Fortune, June 1986 and June 1986.

NEW HEADQUARTERS FOR WHAT FROM WHERE?

The changes among the big players in San Francisco raise a caution flag about the role of San Francisco in the wider urban system. If it no longer will be the primary West Coast center for commanding activities in transportation and finance, where should San Francisco look for its next Chevron or Bank of America?

There are two possibilities: either emerging San Francisco firms will grow to be nationally and internationally important players in their fields; or San Francisco will attract the command functions of an established corporation from a competing location.

Growing Your Own

In an age of renewed entrepreneurship, much is made of the growth potential of emerging enterprises. The Bay Area has yielded a large number of 21st century corporations in recent decades--Hewlett Packard, Apple, Genentech, and so forth. San Francisco is not regarded as the center of high-technology business although its financial community in general and venture capital sector in particular are credited with much of the success of Silicon Valley. Table 7 shows the 26 San Francisco based firms that feature on the San Francisco Examiner's Bay Area Top 100 businesses. San Francisco has 10 of the top 14 firms, but it has only 16 of the next 86. This implies that San Francisco has a much smaller share of medium-sized firms that have potential to grow into corporate heavyweights. As a similar top 100 series in the San Francisco Chronicle points out, San Francisco has only one firm in the top 20 rank of profitability (as measured by three-year average return on equity). These data suggest that San Francisco may lack its share of medium-size firms that are poised to provide the dynamic growth in headquarter employment in the decades ahead.

Table 7

Top 26 Bay Area Firms Headquartered in San Francisco

		Rank	Business
1.	Chevron Corporation	1	Oil
2.	BankAmerica	3	Finance
3.	Pacific Telesis	5	Communications utility
4.	PG&E	6	Power utility
5.	Transamerica Corporation	8	Diversified financial
6.	McKesson Corporation	9	Diversified service
7.	Wells Fargo	10	Commercial banking
8.	Crown Zellerbach	12	Forest products
9.	Genstar Corporation	13	Diversified
10.	Amfac Inc.	14	Diversified
11.	First Nationwide Financial	22	Savings and loan
12.	DiGiorgio Corporation	25	Diversified
13.	Pacific Gas Transmission	27	Emergy transmission
14.	Potlatch Corporation	29	Forest products
15.	California First Bank	37	Bank holding company
16.	United Artists Communications Inc.	39	Theater ownership
17.	American Building Maintenance Inc.	40	Building services
18.	Shaklee Corporation	41	Personal care products
19.	U.S. Leasing International	43	Equipment leasing
20.	Homestake Mining	46	Mining
21.	Grubb & Ellis	50	Real estate
22.	Hexcel Corporation	53	Materials
23.	Community Psychiatric Centers	56	Hospital management
24.	Itel Corporation	57	Equipment leasing
25.	Brae Corporation	68	Leasing
26.	Consolidated Fibres	79	Paper products

Source: San Francisco Examiner, Bay Area Top 100, March 30, 1986.

Attracting Them from Somewhere Else

Back office jobs are generated when support functions are spun off into discrete organizational units. But for a continued stream of new support jobs, there must be a basic command core in need of support. To what degree will San Francisco be capable of attracting new headquarters from other locations? One of the best opportunities for gaining (or, conversely, losing) new headquarters activities is through acquisition, merger, or consolidation. Table 8 gives an indication of merger cycles in U.S. industry. Such merger mania can severely affect the size and location of headquarter activity. For example, between 1955 and 1975 Pittsburgh lost 10 of its 25 headquarters, mostly due to consolidation in the steel industry in the late 1960s. The current merger wave is more likely to threaten than consolidate San Francisco's position--in particular, the Wells Fargo-Crocker alliance, and the takeovers of Genstar, Crown Zellerbach, Natomas, Pacific Lumber, and Castle and Cooke seem likely to result in reduced corporate command functions.

Table 8

Number of Companies Displaced from the Fortune 500 Due to Mergers

1968	20
1970	4
1972	4
1974	5
1976	6
1978	7
1980	7
1982	14
1984	20
1986 (est.)	35

Source: Fortune 500 Industrials for years cited.

Another driving force for attracting headquarters activities is to lure those footloose firms that are not tied to particular markets or suppliers, such as those diversified services firms discussed earlier. These firms can select from a wide variety of possible locations (often based on the life-style preferences of their senior executives). San Francisco is a beautiful city with an exciting life-style, but it is competing with other very livable cities for such headquarter activities. Table 9 compares location of the top *Fortune* 100 industrial locations with that of the top 100 diversified services firms for 1984.

Table 9

Fortune 100 Industrials versus 100 Diversified Services Leading Cities for Headquarters Location

Industrial Top 100		Diversifed Service Top 100	
New York	34	Los Angeles	14
Los Angeles	7	New York	14
Chicago	7	Chicago	7
Pittsburgh	6	Dallas/Fort Worth	5
Detroit	5	Phoenix	3
St. Louis	5	Houston	3
Minneapolis	4	San Francisco	3
Cleveland	3	Atlanta	2
Houston	3	Des Moines	2
Philadelphia	2	Eden Prairie, MN	2
Cincinnati	2	Honolulu	2
Akron	2	Indianapolis	2
Seattle	2	Louisville	2
Atlanta	2	Omaha	2
San Francisco	1	Richmond, VA	2
Palo Alto	1	San Antonio	2
		Philadelphia	2
Others	14	Others	31

Note: A broad geographic definition of Los Angeles and New York was used for both groups. The Bay Area has two industrial 100 firms--Chevron (San Francisco) and Hewlett Packard (Palo Alto). All three Bay Area diversified services firms are located in San Francisco.

Source: *Fortune*, June 1985.

There are three very striking factors evident from this comparison of traditional versus more footloose businesses:

- -- The clear dominance of Los Angeles as a diversifed service location
- -- The continued importance of the greater New York area
- -- The wide range and relative dispersion of competing locations in the sun belt and elsewhere.

Many of these diversified service firms grew in places where their founders happened to be--for example, Hospital Corporation of America in Nashville--but these corporations have found they can operate national organizations from such places as diverse as Louisville, Honolulu, or San Antonio.

SAN FRANCISCO'S HEADQUARTERS OUTLOOK

On balance, then, San Francisco may be peaking out as a center for national headquarters activity because it has a concentration of headquarters of very large firms in mature or maturing industries, and it is likely to lose some corporate control due to mergers. Some doubt must also be expressed both about its ability to attract headquarters from other locations given an increasingly competitive world and about the likelihood of its existing headquarters base to expand rapidly. If these central headquarters functions are not likely to grow, then this raises questions about the longer term stream of jobs in support functions whether they be business or professional services, back offices, or financial infrastructure.

On the positive side, there are some medium-sized firms located in surrounding Bay Area communities that may eventually seek to consolidate their national and international headquarters in a San Francisco site: firms in biotechnology, apparel and fashion, or in services or distribution. These up and comers may seek to symbolically confirm their ascendancy by building a new headquarters in a prestigious San Francisco address. However, such "cathedrals of capitalism" require relatively large sites that may not be available downtown under current and proposed plans. This could be conceived as both a threat and an opportunity for the Mission Bay development: a threat in the sense that no new headquarters may reduce the need for back-office functions and support; an opportunity in that Mission Bay is a large enough site to accommodate new headquarters buildings for medium-sized firms.

A final footnote is the impact that San Francisco's headquarters have on the future stream of jobs in the Bay Area as a whole. San Francisco and Santa Clara Counties house the majority of command centers that are generating secondary office jobs in Alameda, Sonoma, Contra Costa, and Marin Counties. Although Bay Area back offices can be generated from other headquarter cities, it is evident that the Bay Area giants--Chevron, Bank of America, and Pacific Bell, in particular--have been the source of secondary office jobs. If these flows of secondary office jobs are to be maintained, this depends on a healthy set of command functions.

San Francisco may have a viable place as a regional headquarters center for northern California, but it may be losing its relative position as a national and international command center to Los Angeles. If stagnation occurs, this will have an impact not only on the city itself but on the surrounding communities as well.

THE PACIFIC RIM OPPORTUNITY

Through all the economic ups and downs of recent years, the countries of the Pacific rim have outpaced the other areas of the world in total output and trade. (The Pacific rim includes all the countries of Asia and the Pacific islands whose shores are on the Pacific as well as the western states and provinces of the United States and Canada.) The area is likely to continue its extraordinary growth through the next decade.

San Francisco gains huge benefits from being a major commercial center in this area. The benefits come in at least five forms: trade flows in the form of both imports and exports passing through the ports; financial flows that stream through San Francisco-based financial institutions; direct investment from Pacific rim partners in the Bay Area economy; immigrants from Pacific rim countries who bring an increasing diversity of educational and entrepreneurial skills; and tourism and business visitors sharing both perspectives and income from increasingly affluent societies.

San Francisco will continue to get benefits from its role in the Pacific rim. Jobs will be created in banking, finance, trade, distribution, sales, communication, headquarters functions, transportation, legal, and a myriad of other businesses. But the growth of the Pacific rim is not all positive news for San Francisco. In a relative sense, Los Angeles is gaining a much larger share of the benefits, especially in the flow of trade, finance, and direct investment. Southern California accounts for twice as many imports as the Bay Area. Most of the eastern commercial and investment banks and major Asian banks have picked Los Angeles as their headquarters. Further, Asian and European investors have pinpointed Los Angeles as their prime entry point into the U.S. market. With a burst of building in the past decade, the Los Angeles downtown area now has as much office space as downtown San Francisco, and foreign investors own or control 70% of the downtown office buildings, up from only 25% in the late 1970s.* Thus, Los Angeles seems to be gaining the majority of the benefits of the major commercial, financial, and headquarters activity from California's unique placement on the Pacific rim.

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*See Los Angeles Times, August 10, 1986, "Japan Out for More U.S. Buys" and "Wall Street Firms Discover There's Gold in the Southland."

It is not surprising that San Francisco is losing out to Los Angeles as a headquarters site, given the sheer size and dynamic growth of the southern California area. But the San Francisco area may be losing position to some of the smaller West Coast communities as well. The Portland area, for example, is aggressively promoting itself as a site for Japanese manufacturing and distribution of electronic components. So far, the Portland area has attracted a number of Japanese electronic firms and and has established a good reputation in Japan as a liveable, congenial, reasonable cost site for high-tech operations in the United States. Other West Coast cities--Seattle, San Diego, Vancouver, B.C.--are aggressively seeking an expanded Pacific rim role as well.

The growth of the Pacific rim has presented San Francisco with good opportunities for growth over the next 10 to 15 years. It will clearly benefit from the trade, finance, and investment flows. But it is also clear that competition will be severe, not only from the major metropolitan center in Los Angeles but from other West Coast cities as well.

TOURISM AND CONVENTION VISITORS

"Let's go to San Francisco" has been more than the clarion cry of 1960s culture--it has been the travel agenda for conventioneer and family tourist alike for a long time. San Francisco is one of the premier tourist destinations on the planet. Tourism and travel are also big business. Table 10 shows historical trends in the travel services industry, which the U.S. Department of Commerce defines as including U.S. airlines, intercity bus companies, Amtrak, automobile services, commercial lodging places, campgrounds and trailer parks, eating and drinking places, amusement and recreation facilities, automobile rentals without drivers, taxicab companies, travel agents, and general merchandise and miscellaneous retail stores.

Table 10

U.S. Travel Services

	Expenditures (Billions of Dollars)	Employment (Millions)
1972	60	2.7
1977	117	4.2
1978	130	4.4
1979	144	4.5
1980	175	4.6
1981	192	4.7
1982	198	4.7
1983	208	4.8
1984	224	4.9
1985	242	5.0
1986	261	5.2

Source: U.S. Department of Commerce, 1986 U.S. Industrial Outlook.

Defined in this way, travel services is about 5% of GNP, which, for purposes of comparison, is equal to about half the size of the entire health care industry.

Business, conventions, and families are fueling continued growth in the travel services business. In a transactional economy dominated by office-based, problem-solving work, the need to meet face to face continues to expand. Telecommunications seems, if anything, to stimulate rather than substitute for travel. Similarly, the convention business has grown substantially in the past decade: more and bigger conventions are being held. Finally, rising affluence among two-income households and among the elderly has boosted personal travel.

Although San Francisco is a world class destination competing in a growing industry, it lost visitors and receipts in the period from 1978 to 1983 (see Table 11). A recent San Francisco Convention and Visitors Bureau report cites three reasons for this situation:

-- Worldwide economic recession

-- The strength of the U.S. dollar abroad, which had an impact on San Francisco because of the relative attractiveness of foreign vacations and because the city normally derives about one-third of its visitors from foreign countries

-- Significantly increased competition from other domestic and international destinations.

Table 11

Visitors to San Francisco*

	Total (Millions)
1978	2.50
1979	2.72
1980	2.58
1981	2.57
1982	2.36
1983	2.35
1984	2.57
1985	2.65

*Refers to those staying overnight in commercial accommodations in the city and county of San Francisco.

Source: San Francisco Convention and Visitors Bureau, 1986.

The decline caused the Convention and Visitors Bureau to develop an aggressive five-year marketing plan in 1984 aimed at promoting the pleasure travel market, which accounts for 50% of San Francisco's visitors. The plan and improvements in the economic climate have reversed the decline, bringing the visitor level up to its late 1970s level.

Another major component of San Francisco's tourism business is conventions. About 38% of the overnight visitors are associated with conventions. San Francisco conventioneers:

-- Stay longer than average (an average of 4.5 days as opposed to the national average of 4.0 days)

-- Bring their spouses more than average

-- Spend more (in 1985 they spend $696--about 40% more than the national average).

This perceived value added by these visitors has encouraged the tourism industry to argue for a 25% expansion of the Moscone Center to accommodate more and larger conventions.

The convention and personal visit increases in 1984 and 1985 helped to absorb more hotel room capacity. However, San Francisco's hotel occupancy rate has been dropping steadily since 1979--even though it remains ahead of the U.S. average (see Table 12). Currently, there are approximately 1,800 hotel rooms under construction with a further 2,600 rooms approved or under review and 1,300 more at the proposal stage. If all this hotel capacity came on line, this would represent a 25% increase in commercial hotel rooms in the city between now and the early 1990s.

Despite increased competition for convention and personal travel business from other Bay Area, California, national, and international centers, San Francisco is capable of attracting more than its fair share because of its climate, unique character, and reputation. The proposed increased capacity can help maintain competitive prices and flexibility for one of San Francisco's principal export industries and a major employer of entry-level workers.

Table 12

San Francisco Room Capacity and Occupancy

	San Francisco Room Capacity (Number)	San Francisco Occupancy (Percent)	U.S. Average Occupancy (Percent)
1978	20,475	75.0	n/a
1979	20,725	81.0	73
1980	20,425	78.0	70
1981	20,600	77.0	68
1982	20,800	70.0	66
1983	21,000	69.0	65
1984	22,150	71.5	68
1985	23,500	69.5	65

Source: San Francisco Convention and Visitors Bureau, 1986.

SAN FRANCISCO AS THE BAY AREA CENTER

San Francisco is the historic center of what is now the fourth largest metropolis in the United States. Although the city itself may be losing its momentum as a headquarters city in the national and international urban system, it still remains the natural financial, legal, and specialized service center for a strong and dynamic hinterland.

Table 13 shows population growth in San Francisco and its surrounding metropolitan areas. Even if antigrowth initiatives begin to temper the dynamics of the closest metropolitan areas such as Fairfield-Vallejo-Napa or Santa Rosa-Petaluma, the dynamism of the metropolitan areas of Sacramento, Stockton, and Modesto are likely to continue. These areas are emerging as lower cost alternatives for both "Silicon Valley outposts" (new locations for high-technology plants) and as centers of distribution and packaging for the California market in general and the Bay Area in particular. As firms in these peripheral areas grow, they are likely to look at San Francisco for sophisticated financial, legal, and specialized business services. San Francisco can play an important role in servicing its dynamic hinterland.

San Francisco has the established infrastructure of advanced corporate services that can support these developing areas. It is unlikely that competing central cities such as Sacramento, Oakland, or San Jose can emerge as equivalent in expertise to San Francisco in advanced corporate services. However, much will depend on the willingness of San Francisco-based firms to cultivate these northern California markets. There are strong indications among certain banks and S&Ls that they are now reorienting themselves to serve northern California markets rather than spreading themselves too thinly over western, national, or international markets.

San Francisco can use its historic position as a regional center to revitalize its headquarters and advanced corporate services activity.

Table 13

Greater Bay Area Growth

	1984 Population (Thousands)	1980 Population (Thousands)	1980-84 Percent Change
San Francisco, Oakland, San Jose CMSA	5,685	5,368	5.9
Oakland PMSA	1,871	1,762	6.2
San Francisco PMSA	1,542	1,489	3.6
San Jose PMSA	1,372	1,295	5.9
Vallejo-Fairfield-Napa PMSA	368	334	9.9
Santa Rosa-Petaluma PMSA	326	300	8.9
Santa Cruz PMSA	206	188	9.4
Sacramento MSA	1,220	1,100	10.9
Stockton MSA	399	347	14.8
Modesto MSA	296	266	11.2
Yuba City MSA	110	109	7.4
Chico MSA	159	144	10.2
Total Greater Bay Area	7,869	7,327	7.4
Total United States	236,158	226,550	4.2

Source: Bureau of the Census, Population Estimates.

SAN FRANCISCO'S ENDURING STRENGTHS: FINANCIAL, LEGAL, CREATIVE

San Francisco will continue to benefit from some key activities that find a unique home within the urban environment of San Francisco. Three activities are especially important--financial, legal, and "creative"--because they earn a substantial amount of income from outside the city. These export-oriented jobs are extremely important to the economic health of the city because they generate income from outside that is spent inside the city and generates additional jobs in the commercial and service sectors.

FINANCIAL

Despite the growth of financial activity in Los Angeles, San Francisco retains a role as a regional financial center. It retains the western regional headquarters of a number of key governmental financial agencies including:

- Federal Reserve
- Federal Home Loan Bank Board
- Federal Deposit Insurance Corporation
- Commodity Futures Trading Commission
- National Credit Union Administration.

San Francisco is the headquarters of the Pacific Stock Exchange and the Pacific Commodity Exchange. It is the dynamic center of the venture capital business in the United States. And it retains its headquarters location for such key national and international financial institutions as Bank of America, Wells Fargo, California First Bank, and Transamerica.

LEGAL

San Francisco will continue to be one of the country's legal centers. It is the location of the California Supreme Court and the Federal District Court for the western states. It is the city with the fifth largest concentration of lawyers in the country (behind New York, Washington, D.C., Chicago, and Los Angeles) and has some of the largest law firms in the country headquartered here.* San Francisco offers unique advantages to lawyers who specialize in international activities, in venture capital activities, in patent law, or in regional issues.

"CREATIVE" ACTIVITIES

In discussing the creative sector, we are taking "creative" in its widest sense to include any activity that includes aesthetic components of color, fashion, music, language, and style. It would include everything from art through design, graphics, movies, broadcasting, and advertising. Many people who work in these fields are attracted by San Francisco's range of activities in fine arts, music, and theater; by the easy-going life-style of California; and by the natural beauty of the city.

The economic importance of this creative sector goes well beyond the direct jobs involving aesthetic components. These activities spill into other sectors and create ancillary jobs. Two examples will suffice to make the point: San Francisco attracts many young, ambitious, and talented designers from not only the country but other countries as well. These designers have been extremely important in developing a distinctive California style in women's sportswear over the past two decades. Because of the importance of timing in style-conscious garments, the designers often look for local production outlets that can provide rapid, high-quality outputs. It is primarily this combination of the creative designers with a flexible labor supply (and entrepreneurial talent) that created a net increase of 4,000 jobs in the apparel sector in San Francisco since the early 1970s. Likewise, in the printing trades, the presence of high-quality graphic artists has helped keep the quality of output high despite revolutions in technology that have transformed the printing industry from offset press to electronic design and production. The printing industry has retained a key role in the city's economy, covering the needs of a diverse clientele including the staid legal sector, a dynamic advertising sector, and a creative graphic arts sector.

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*American Bar Foundation, The Lawyer Statistical Report.

R&D IN CONTEXT

Industrial research and development (R&D) is an attractive business by many standards.

-- It is a growth activity: During the past five-year period, funds for U.S. industrial R&D have been growing much faster than overall business growth. In fact, R&D spending as a percent of business revenues has grown at an average annual rate of 13.4%. The most rapid growth has occurred in high-technology industries, led by companies that produce computer chips and electronic circuits, where new products and technologies are essential for revenue growth. In these industries, R&D funding has grown at at an annual average rate exceeding 17% per year. Table 14 indicates the U.S. industries that experienced higher than average growth in R&D over the five-year 1979-84 period. Three common indicators of R&D growth are presented for each industry.

-- R&D spending in high-tech firms tends to be recession proof: it is affected inversely by the business cycle. For example, in spite of a lengthy slump in the computer electronics industry beginning in 1983 and substantially reduced profits, Silicon Valley electronics firms have been increasing their R&D funding at a fast pace. At Intel Corporation, which has significantly reduced its production and middle management work force in recent months, R&D spending in 1985 grew to 14.3% of total revenues from 11.2% in 1984. In dollar terms, Intel boosted spending to $195 million from $180 million in that period.

-- R&D generates jobs. Although not necessarily high-volume employers, per se, industrial R&D activities generate jobs. High-tech industries have been shown to generate roughly two to three jobs in support firms for every employee working directly in the field.

-- In addition, R&D is generally a "clean" activity, more comparable to business services than to manufacturing.

-- Finally, R&D is attractive because it attracts other R&D.

Table 14

R&D Growth Industries

Industry	5-Year Average Annual Growth Rate	Percent of Sales	Percent Pre-Tax Income	Dollars per Employee
Aerospace	17.7	4.6	79.6	4,196
Chemicals and Allied Products	16.7	3.0	39.1	3,867
Drugs and medicines	18.1	6.7	39.7	5,704
Electronics	19.7	4.3	64.7	2,690
Semiconductors	24.8	8.1	83.2	4,594
Food and Beverage	14.6	0.8	10.8	972
Fuel	21.6	0.6	6.2	2,869
Information Processing				
Computers	17.9	7.2	45.4	6,162
Office equipment	18.0	5.8	65.8	4,505
Peripherals	27.6	6.0	66.2	4,420
Software, services	n/a	7.4	49.7	4,993
Scientific and Professional Instruments: measuring devices and controls	17.2	5.5	80.9	3,563
Machinery				
Machine tools, industrial, and mining	11.9	3.0	128.8	2,092
Oil Service and Supply	22.2	2.6	51.4	2,159
Paper and Forest Products	17.0	1.0	15.3	1,172
Telecommunications	20.8	1.4	10.7	1,610
Textiles, Apparels	18.7	0.7	17.6	494
All Industry Composite	14.4	2.8	33.3	3,081

Source: "R&D Score Board," Business Week, March 22, 1986. Based on SEC data for companies reporting annual sales of more than $35 million and R&D spending of at least $1 million or 1% of sales.

These and other attributes of R&D have led many states and locales to expend considerable time and money to attract R&D-based industries to their areas, in an effort to emulate Caifornia's extraordinary success in high-tech industrial growth. About 15.4% of industrial R&D funding in the United States is spent in California. California leads the nation in both the number and funding levels of industrial research and development centers with 1,470 industrial research labs. Industrial R&D funding exceeded $9.6 billion in 1983.* Table 15 provides a picture of industrial R&D in California compared with other major R&D states.

Table 15

Growth in Industrial R&D Funds in the Largest Performing States

	1983 Dollars (Millions)	Percent of Total U.S. Industrial R&D
California	9,671*(1)	15.4
New York	5,727	9.1
Pennsylvania	3,814	6.1
Texas	2,453*	3.9
Massachusetts	2,373	3.8
New Jersey		

Note: The California figure is probably low due to a large amount of imputation and under sampling of small companies in the national sample).

*Estimated

(1) In 1983, California received 27% ($5,449 million) of federal funds for industrial R&D--over half of that is estimated to have been in the aerospace industry.

Source: National Science Foundation

Industrial R&D spans the continuum from independent start-ups to extensions of existing R&D units within mature industries.

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*Includes both federal and company funded industrial R&D.

LOCATION AND SITE SELECTION CRITERIA

What causes an R&D-based firm to take up residence in a particular area? We're concerned with two types of decision criteria--location criteria and site criteria. Location criteria are factors that affect a firm's decision to locate in a particular geographical area. The factors that affect a firm's decision to choose a specific facility are site selection criteria. Each of these are dealt with below. First, however, it is important to recognize that location and site selection criteria tend to vary for establishments by function. These criteria are different for establishments engaged primarily in volume production than they are for those primarily undertaking R&D and new product production. In general, the higher the volume of production, the more important semi-or unskilled labor and land costs become.

Criteria for Selected R&D Industries

To set a framework for discussing site selection criteria for specific industry segments that may represent good prospects for San Francisco, it is useful to examine criteria that are important to R&D-based firms at different stages in their development. Site decisions of high-tech product development firms depend to a large extent on the maturity of the firm. At least three stages in a firm's maturity can be identified with corresponding differences in location and site needs.*

1. Start-up firms. Start-up firms develop as key individuals move out from related corporate or university settings. Location decisions for these firms are frequently based on the commute time from the founder's residence while site decisions are likely to be a function of cost. Given favorable market conditions, start-ups tend to occur in areas where the following factors exist:

    -- There are a number of talented people working for universities or high-growth or mature firms.

    -- Venture capital is available.

    -- A number of well-developed support services exist--lawyers, accountants, and insurance agents who are familiar with the concerns of start-up firms.

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*Bob Gorlow, "High-Tech Location Decisions and Corporate Dynamics," Urban Land, December 1984.

- A well-developed network of suppliers and customers allows the start-up firm to focus on what it does best.

2. High-growth firms are those that have successfully introduced a product or line of products and are developing new ones. These firms' location decisions tend to be driven by R&D concerns since successful R&D and coordination of R&D with manufacturing are keys to their success. For these firms, the following key factors are generally important:

   - Educational facilities: In addition to the presence of major universities as a source of talent and expertise for corporate headquarters and R&D, a strong community college is also important as a source of technicians and their continuing education for R&D and manufacturing facilities.

   - Labor supply: R&D-dependent companies are primarily concerned with the care and feeding of their R&D staffs. R&D requires top-flight engineering talent, but the labor requirements for manufacturing can vary. Keeping manufacturing plants in the same area as R&D laboratories and corporate headquarters, where operating costs are higher, can be a problem if production depends on less skilled labor and the firm's market is cost competitive. High-growth firms are either small, independent businesses or small components of larger businesses. To take advantage of boom periods, they frequently pirate employees from related firms and are assisted in this process by the presence of a "critical mass" of related firms in their region.

   - Functional climate: This factor encompasses the objective ability of the firm to expand rapidly at current or nearby sites so as to take advantage of a market window, the presence of variable location costs such as personal and corporate tax rates, and the subjective perception that the area in question is experiencing or about to experience dynamic growth in the firm's business.

   - Utilities: Reliable and high-quality utilities tend to be more important in manufacturing facilities than R&D although product innovation firms which are heavily dependent on data processing and the use of sensitive test equipment also find reliability an important consideration.

- Transportation: The importance of distance and time barriers tend to be business dependent although proximity to reasonably priced, high-quality residential communities for employees and the commute distance between related parts of the business are generally considered important.
- Access to markets: Products produced by high-tech firms generally are not bulky and have a high margin to weigh ratio. They can be delivered quickly and shipping costs are a minor portion of costs. When field service is key to the company's products, proximity to markets becomes important. Proximity to markets may also be important to firms serving particular sectors.
- Life-style: The importance of attracting and retaining high-quality scientific and technical employees.

3. Mature firms that have seen at least one product through maturity and have moved successfully to other products tend to balance their locations between market and R&D concerns. Mature product development firms are primarily concerned with maintaining their supply of talented engineers and scientists and minimizing costs. Mature firms generally have made long-term commitments to a location for corporate headquarters and R&D facilities. In contrast to start-up and high-growth firms, mature firms tend to want to locate their R&D facilities in areas where employees are unlikely to be pirated by other companies.

There is general agreement that for R&D-based activities, existing pools of scientists and engineers, corporate headquarters, and major universities are the most important predictors of R&D locations. For R&D-based businesses, the critical factor in determining location choice is the proximity to R&D talent: scientists, engineers, and technicians. Availability of relevant talent tends to be a function of two variables: the presence of university research related to the R&D area in question and the presence of firms working in related areas from which to draw employees. University R&D programs and/or related firms may also serve as the parents of start-up firms as faculty or employees leave their current positions to start their own businesses. The major universities tied to locational decisions in the Bay Area include the University of California at Berkeley, Stanford University, and, for selected industries, the University of California at San Francisco. The existence of support services are also a frequently cited factor in the location of R&D concerns. Support services can include a wide range of activities from local venture capital to specialized businesses producing non-routine products.

Table 16 lists the R&D growth industries discussed earlier and the proportion of firms in these industries located in California and a five-county area including San Francisco, San Mateo, Alameda, Marin, and Santa Clara.

As a threshhold indicator, those industries in which California has 21.4% or more of existing firms are considered the most likely prospects for future R&D growth in the state.* Not surprisingly, the 11 sectors that exceed this criterion of concentration include electrical equipment (communications equipment and electronic components), computing and accounting machinery, aerospace, professional and scientific instruments (measurement and controlling devices, and optical instruments and lenses), computer programming and software development, and R&D laboratories. Another sector that exceeds the concentration criterion but is too new to be captured by SIC codes is biotechnology. California has about 28% of existing biotechnology firms.

The industry sectors in Table 16 in bold type represent those segments that are good prospects for R&D growth and development in the Bay Area. Over 25% of California firms in these sectors reside in the five-county area under consideration. The location of industries in the Bay Area is examined further in Table 17. Columns 5 and 6 represent those counties that are within a reasonable commute of San Francisco. Santa Clara County (Columns 7 and 8) represents a competing geographical location for firms within the selected industries.

California is home to approximately 28% of biotechnology firms in the United States. Of the 220+ firms in the state, some of the largest and most promising are resident in the Bay Area. Consequently, it has been included for analysis in this study.

As is apparent from Table 17, Santa Clara County represents a concentrated location in the region for firms in all sectors identified as good prospects for R&D in the Bay Area. This suggests, _ex ante_ that Santa Clara county is a better locational choice for firms in these industries.

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*This is double the percent of firms (10.7%) that could be predicted on the basis of population alone.

Table 16

Location of R&D Growth Industries

SIC	Industry	United States Number of Firms	California Number of Firms	California Percent of U.S.	Five-County Bay Area** Number of Firms	Five-County Bay Area** Percent of California
20	Food and Beverages	20,808*	2,527	12.1	497	19.7
26	Paper and Forest Products	6,321	587	9.3	118	20.7
28	Chemical and Allied Products	12,027	1,440	12.0	263	18.3
283	Drugs and Medicines	1,288	178	13.8	34	19.1
29	Petroleum and Related Products	2,307*	249	10.8	30	12.1
357	Computing and Accounting Machinery	2,327	794	34.1	341	43.0
3573	Computers	1,902	715	37.6	320	44.8
36	Electrical Equipment	16,088	3,509	21.8	953	27.2
366	Communications Equipment	2,398*	633	26.4	179	28.3
367	Electronic Components	5,348	1,533	28.7	520	33.9
372	Aerospace	1,439	392	27.2	6	1.5
38	Professional and Scientific Instruments	7,996	1,623	20.3	414	25.6
382	Measurement and Controlling Devices	2,374	521	21.9	163	31.3
383	Optical Instruments and Lenses	628	158	25.2	52	32.9
384	Medical Instruments and Supplies	2,711	515	19.0	68	13.2
3841	Surgical and Medical Instruments	902	195	21.6	37	19.0
3842	Surgical Appliances and Supplies	1,323	208	15.7	20	9.6
3843	Dental Equipment and Supplies	482	112	23.2	8	7.1
7372	Computer Programming and Software	10,172	1,908	18.8	596	31.2
7391	R&D Laboratories	2,987	648	21.7	199	30.7
7397	Commercial Testing Laboratories	2,669	341	12.8	44	21.7
----	Biotechnology***	220	62	28.2	15	25.0

*1982 County Business Patterns; all other data (except biotechnology) is from 1983 County Business Patterns.

**Includes Alameda, Marin, San Francisco, San Mateo, and Santa Clara Counties.

***The number and concentration of biotechnology firms are estimated from various sources.

Bay Area R&D Industries

				San Francisco County		Marin, Alameda, and San Mateo Counties		Santa Clara County	
SIC	Industry	Total Number of Firms in Bay Area	Percent of Firms in California	Number of Firms	Percent of Bay Area	Number of Firms	Percent of Bay Area	Number of Firms	Percent of Bay Area
357	Computers and accounting machinery	341	43.0	7	2.0	69	20.2	265	77.7
3573	Electronic computing equipment	320	44.8	6	1.9	60	18.8	254	79.4
36	Electrical equipment	953	27.2	49	5.1	237	24.9	667	70.0
366	Communications equipment	179	28.3	6	3.4	48	26.8	125	69.8
367	Electronic components	520	33.9	11	2.1	96	18.5	413	79.4
38	Professional and scientific instrumentation	414	25.6	28	6.8	125	31.2	261	63.0
382	Measurement and controlling devices	163	31.3	---	---	37	22.7	126	77.3
383	Optical instruments and lenses	52	32.9	2	2.9	14	27.0	36	69.2
7372	Computer programming and software development	596	31.2	117	19.7	197	33.1	282	47.3
7391	R&D labs	199	30.7	16	8.0	64	32.2	119	59.8
----	Biotechnology	133	25.0	6	4.5	56	42.1	71	53.4

*This row includes firms engaged in genetic engineering as well as firms in related medical equipment and instrumentation from a list provided by the San Francisco Chamber of Commerce.

Source: County Business Patterns.

This suggests that some advantages have existed in the past for Santa Clara County as a locational choice for firms in these industries. Is this likely to hold true in the future? A discussion of future location must consider that, with the possible exceptions of biotechnology and some applications software and computer programming, each of the industries listed in Table 4 is related as a supplier or market for the others. Computers, communications equipment, and other electrical equipment draw on electronic components and measurement and controlling devices in developing their products. In other words, there exists a "critical mass" of activity in the area that feeds both product and personnel to related industries. As is also apparent in Table 4, this critical mass does not exist in San Francisco County. Current vacancy rates in R&D buildings in Santa Clara suggest that there is ample room for expansion of activities in that county at rates comparable to or lower than those that might be offered in Mission Bay.

The activity that does move out of Silicon Valley is likely to be located or relocated on the basis of labor and land costs as the following discussion of the computer and semiconductor industries indicates.

The computer industry is the prototypical high-technology sector, created out of several large research projects in the 1940s that resulted in the first digital computers. Initial production was very much on a small-batch basis. In the ensuing years, technological changes created new applications, price performance improvements, and the development of important related innovations. Standardization permitted competitors of major computer manufacturers to produce peripheral devices. The development of mini-and, later, micro- and personal computers allowed a large number of new firms to enter the market while these products were still unstandardized. In both cases, economies of scale in production and standardization of hardware and operating software produced a "shakeout" that eliminated small competitors that could not match the production costs of large-volume firms or identify niche markets. The computer industry continues to be characterized by both large-volume products (production is either highly automated or done by low-cost workers) and by state-of-the-art R&D and small-volume products that rely heavily on pools of skilled engineers and technicians. Other sectors present in the Bay Area are also characterized by this dual production. The electronics components sector consists of high-volume production/labor-intensive chip assembly and testing components and the small-volume skill-intensive design and fabrication of chips. The dual components of these industries are apparent in the size of their fim's distribution. In computing equipment, 75 plants employing 1,000 or more workers accounted for 52% of employment in the United States. In semiconductors (one of the major industries within electronics components), 49% of the industry's total U.S. employment is accounted for by 17 plants employing 2,500 or more workers.

As mentioned earlier in this discussion, volume production and R&D/prototype functions have different locational criteria. As production of standardized products increases, firms want cost reductions and locations with low labor and land costs become increasingly important. This explains why manufacturing has tended to move overseas or to domestic sunbelt locations.

Will R&D move? In high-growth product firms, when the relationship between R&D and manufacturing is critical, both functions tend to occur in the same location. However, as products become standardized, R&D is less critical to manufacturing and will tend to be located in a different site, either at corporate headquarters or where there is an especially critical pool of skilled labor available. The exception occurs in mature industries or in established firms that may move their R&D facilities to a remote site where company labs are in less danger of losing critical professionals to start-up firms or competitors.

To summarize this discussion, Mission Bay may be able to capture specific firms within the sectors dominated by Santa Clara County--for example, scientific instrumentation forms specializing in products for hospitals--but we are unlikely to see any significant movement of established local R&D firms into San Francisco as a result of Mission Bay development.

Site Selection Criteria: Industry Segments for Mission Bay

Our analysis suggests that the most likely prospects for R&D activities in Mission Bay will be in the biotechnology and computer software development industries. Biotechnology could be drawn to Mission Bay because of its central location between the biotechnology research occurring at UC-Berkeley and research testing at UC-San Francisco and its proximity to some of the major biotechnology firms in the area--including Genentech. Applications software development firms could be drawn into Mission Bay both from other locations and possibly from firms in surrounding counties that are serving San Francisco industry.

Biotechnology. Biotechnology is often cited as the new "leading edge" industry comparable to the computer industry 25 years ago. This young research-oriented industry sector began in San Francisco with the formation of Genentech. California currently has between 25% and 28% of all U.S. biotech companies involved in commercial applications; primary centers are located in the San Francisco Bay Area/Sacramento and Los Angeles/Orange County. There are at least five commercial application areas served by biotechnology firms. These include pharmaceuticals/health care, chemicals, energy/environment, food processing, and agriculture. It is the pharmaceuticals/health care category that represents the greatest potential for development in the Bay Area. While the take-off point for most biotech products is almost certainly five or more years away, the market potential for health-related products (including antibiotics, vaccines, interferon, insulin, and diagnostic tests) is estimated to be over $5 billion by 1990.*

The biotech industry is comprised primarily of two types of firms: (1) small research-oriented companies established since 1976 and (2) pieces of large manufacturing firms in the pharmaceutical and health care, chemical, energy, and food processing sectors.

Biotechnology firms range in maturity from those still primarily involved in R&D to those in the early stages of product manufacturing. There is some speculation that the number of new biotech firms has peaked in California and that the major growth in this sector may come from firms already in existence. Locational issues tend to vary acording to the size of the firm in question. Some generalizations can be drawn, however. Without considering differences attributable to a firm's size and maturity, health-related biotech companies generally consider the following important in location choices:

-- A quality labor force nearby

-- Affiliation with university or hospital with state-of-the-art research expertise

-- Affordability

-- Sophisticated transportation network that includes good freeway and airport access.

Current needs for most biotech firms are being satisfied by standard R&D buildings with some customization to reflect needs for biologically "clean" rooms and controlled environments. According to the research of one commercial real estate firm, current utilization of R&D space by biotech firms is estimated at 8 million to 10 million square feet nationwide.* If industry projections of between 25% and 30% employment growth (on a current base of 6,000) are realized, the biotech industry will need between 2 million and 3 million square feet of new R&D space each year for the next five years. For the Bay Area, this need could translate into annual requirements of 150,000 to 200,000 square feet, or 7.5% to 10% of national requirements. San Francisco will be able to capitalize on these space requirements only if it has appropriate space available. This space estimate does not include increased needs associated with marketing and administrative operation or support and follow-on business associated with the biotech industry such as specialized instrumentation and equipment. Other high-tech industries have generated roughly two to three jobs in support firms for every employee working directly in the field. If this holds true for biotech, the industry could generate additional demand for space in the range of 2 million to 3 million square feet each year nationwide or another 150,000 to 200,000 square feet locally.*

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*Office of Technology Assessment, Commercial Biotechnology, 1984.

If biotechnology employment grows at 25% over the next five years and California maintains its current percentage of commercial firms (25% to 28% of total U.S. firms), biotechnology employment in California could approach 5,000 by 1990. Assuming the region from the San Francisco Bay Area to Sacramento accounts for half of this employment, the increase in northern California would be approximately 2,300 new jobs. Were San Francisco to capture 10% of those jobs, starting in 1986, it could count 230 new employees in biotechnology by 1990 and possibly 930 jobs by the year 2000.** Are these realistic estimates? A thoughtful response to this question requires looking at each component of the estimate.

Will biotechnology R&D employment continue to grow by at least 25% to 1990? A consensus is developing that the number of new firms in the industry is unlikely to increase significantly in the future. Biotechnology is likely to experience a period of consolidation as current firms team with or are purchased by existing firms in related industries in order to acquire the capital necessary for producing and marketing their products. Consolidation and mergers, as San Francisco has experienced in recent years, tend to have a negative effect on employment.

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*Grubb & Ellis, Quarterly Newsletter of Commercial Real Estate Activity, "Market Trends," January 1986.

**Based on a 15% growth rate between 1990 and 2000.

Can San Francisco capture at least 10% of the region's growth in employment? This is a crucial question for Mission Bay since the development for the area could result in a significant amount of R&D space that is scarce in the city. Its answer depends on many factors and assumptions about their outcome.

In San Francisco's favor, recent efforts have been undertaken by the Chamber of Commerce, supported, among others, by the Mayor's Office of Housing and Economic Development to encourage a positive environment for biotechnology within the city. Discussions about how biotechnology R&D might be fostered have been held with officials at the San Francisco and Berkeley campuses of the University of California. These two universities are considered to be important national actors in biotechnology R&D. A joint R&D effort by them could be very important in encouraging start-up companies by their faculty or students within the city. It could also be useful in attracting offices of large pharmaceutical and other health-related companies that could benefit from university research. The proximity of major biotech firms and Stanford University add to San Francisco's appeal as a location for such efforts. Nevertheless, plans are still at the discussion stage, and it may take many months before they are finalized. It is also possible that the discussion will not result in additional research or increased R&D activity within the city.

A significant portion of the employment growth in biotechnology may occur in production as opposed to R&D activities. As discussed earlier, location criteria for production facilities tend to be different than those for R&D and favor low real estate and labor costs outside metropolitan areas. In addition, concern by the public that biotechnology is not an inherently safe process may lead firms to forego potential political difficulties by locating outside heavily populated areas. And some byproducts of the production process--for example, unpleasant odors--may raise additional concerns for mixed-use developments. Community opposition in San Francisco has been cited by a staff member of the Chamber of Commerce as an important potential stumbling block in efforts to promote San Francisco as a major location for health-related biotechnology.

Finally, it is unlikely, in our view, that an existing company within the region with production in place will be attracted to a site within San Francisco. The best prospect for Mission Bay is likely to be found in commercial spin-offs from the UCSF and Berkeley compuses and nearby biotech firms--for example, Genentech. A change in any of the assumptions cited above could significantly affect the outcome for biotech employment in Mission Bay.

Software R&D. Software companies generally make their locations in the very early start-up stage, and such decisions typically reflect the personal preferences of their founders. Once located, software firms rarely move headquarters. The software industry is directly affected by the availability of programmers, and the California state educational system trains more programmers than anywhere else in the country. In addition, major California universities, including Stanford, UC Berkeley, UCLA, and UC Irvine, are leaders in advanced programming. Also, numerous research efforts are occurring in conjunction with the aerospace industry, including San Diego, El Segundo, Sunnyvale, and Livermore.

Just as there was once a shortage of garden-variety programmers, new shortages now exist of programmers proficient in advanced programming techniques, including artificial intelligence. The changing availability of skilled employees has affected the location of firms. Efforts have been made by firms to reduce personnel costs in programming by hiring less skilled workers for some tasks and "superstars" for systems work. This division of labor has resulted in some locational movement in California where more routine work is being moved away from the San Francisco Bay Area. California is a major center of advanced software research and contains a large pool of programmers in those areas of expertise that have the most acute programmer shortages.

In northern California, software research labs of large firms tend to cluster around Stanford and Berkeley--particularly the former. DEC has its artificial intelligence lab in Palo Alto, Mead Data Central has its software lab in Menlo Park, and Rockwell International has recently opened its artificial intelligence lab in Palo Alto as well. Cost of space is not necessarily a primary concern of these companies. The Mead Data Central lab is in a Sand Hill Road complex where new rentals approach $3 per square foot per month. Interviews with these companies suggest that close proximity to Stanford and its best graduate students and its corporate image are more important factors than the cost of space.

Mission Bay could capitalize on its proximity to Berkeley with a concerted effort to attract start-up firms founded by students and faculty and to attract software labs, similar to those that have located near Stanford, of larger corporations anxious to attract good graduate students and keep informed of new software developments. Perhaps the best prospects for Mission Bay, however, lie in the increasing number of software development firms serving particular vertical business markets. To a large extent, the growth and health of these firms will depend on the growth in employment and services in San Francisco as a whole. As niche markets grow in banking, communications, retail, transport, wholesaling, and medical and dental services, businesses will become increasingly dissatisfied with generic software. Software development firms able to provide niche applications and networking are likely to prosper in this environment. Mission Bay could provide the location for new firms and expanded facilities for existing firms.

BLUE-COLLAR EMPLOYMENT

Blue-collar employment is traditionally associated with manufacturing activity. Table 18 shows that both blue-collar and manufacturing employment have lost substantial shares of total employment over the past 35 years and especially in the past 15. It is interesting to note, though, that blue-collar employment remains well above the employment in manufacturing and that is has been declining at a slower rate.

Table 18

Employment in Manufacturing and Blue-Collar Activities

(Share of All Employment)

	Manufacturing	Blue Collar*
1950	33.7	39.1
1960	31.0	36.6
1970	27.3	35.9
1980	22.4	32.2
1986 (July)	19.2	28.4

*Includes occupational categories covering production, craft, repair operators, fabricators, and laborers.

Source: Department of Labor, Employment and Earnings and Monthly Labor Review.

BLUE-COLLAR WORKERS IN MANUFACTURING

Manufacturing employment in the United States has been falling as the U.S. position in the world changes. As per capita incomes in the United States rise, the general wage levels go up. This has had a dramatic impact on the relative price of many manufactured goods in the United States, especially since we have kept our borders relatively open to international competition. U.S. manufacturers have responded to these cost threats in four ways:

- -- They have substituted technology for workers or enhanced the productivity of existing workers with technology.
- -- They have moved to production of goods that have a higher value-added content.
- -- They have found new sources of cheap labor.
- -- They focused on producing goods that must be manufactured close to the market.

These general trends have tended to work against manufacturing employment in cities in several ways. The substitution of technology for people has forced manufacturing companies to build new plants in nonmetro areas where land costs are cheaper and environmental issues are more amenable to solution. The movement to higher value-added manufacturing has usually meant location outside the urban center in industrial parks in the clean and neat suburbs or the urban fringes where the science and technology cadre prefers to live and work. The search for new sources of cheap labor have increasingly meant overseas production sites with wage rates of 10% to 20% of U.S. levels. All of these factors have led to declines in manufacturing employment in major U.S. cities over the past 30 years. There is little evidence that these trends will change dramatically over the next decade.

Within this general context, though, there are a few manufacturing businesses where employment has held up rather well in California cities, like Los Angeles and San Francisco. Two examples are apparel and printing. Apparel has been, by far, the most dynamic manufacturing employer in the central cities. It has flourished in an environment where immigration provides a cheap and flexible labor supply; designers provide a constantly changing fashion context; and the urban network provides an ideal location where designers, purchasers, advertisers, stores, and cut-and-sew houses can interact daily in a business where quick response time is critical to success.

The printing industry has a similar need for continual interaction among graphic designers, advertisers, stores, mass communication outlets, and corporate staff. In addition, several San Francisco-based service industries--legal and financial--need very rapid turnaround of large amounts of printed material to function effectively.

Both thse manufacturing businesses are likely to continue to provide many jobs in San Francisco. But the types of jobs will be in special categories of blue-collar occupations: apparel jobs will be held primarily by women immigrants who work flexible hours at relatively low pay; printing jobs, in response to newer technologies, will be increasingly in managerial, sales, and technical support. In neither industry will there be many higher wage, male-domincated craft and production jobs.

BLUE-COLLAR WORKERS IN SERVICES

Sixty percent of blue-collar jobs are not in the manufacturing sector (see Table 19). In fact, about one-quarter of all blue-collar jobs are in the very dynamic services and wholesale/retail trade sectors. These jobs, which encompass activities as diverse as driving trucks, repairing office equipment, and providing security services, will continue to grow in San Francisco. The most dynamic businesses providing blue-collar services are likely to be those that provide higher value-added services that fill an important need in the urban setting--providing immediate repair services to critical office equipment, moving European mushrooms through the produce market, and widening the variety of cut flowers sold in the flower mart. In sum, whether or not they are clearly identified as blue-collar workers, the number of people in the nonmanufacturing sector of San Francisco who drive a vehicle, operate a machine, stock a shelf, maintain a backroom, deliver products, clean floors, build an addition, repair a machine, or guard an art treasure will be substantial.

Table 19

Blue-Collar Jobs, by Industry Sector

(Share of All Blue-Collar Jobs)

Manufacturing	40.6
Construction	19.6
Wholesale/retail trade	14.4
Services	10.9
Transportation/communication	10.7
All other	3.8
	100.0

Source: U.S. Department of Labor, Employment and Earnings

MARITIME ISSUES RELATED TO MISSION BAY

CURRENT MARITIME USES

A recent report by Recht, Housrath Associates on Business Activity and Employment in Mission Bay suggests that 37 establishments within the project area are considered as maritime-related. At the time of that report, these establishments represented exactly one-third of the total project area establishments and employed the same percentage of the area's total employment (654 employees). "Seventy percent of both the maritime-related establishments and employment were in the subarea west of Third Street."

At the time of the Recht, Housrath report, short-term leases were being negotiated in Mission Bay for $0.20 to $0.30 per square foot. These rates are below market but only negotiated on a short-term basis. If these rates are at the maximum ability to pay of current maritime-related business, it is unlikely that such businesses will locate in the developed project. In addition, the attraction for the maritime-related businesses in Mission Bay may have diminished in recent years. "The older area businesses all cited a decline in area maritime, trucking and warehousing activity which began around 15 years ago . . . Every establishment that reported using San Francisco Port facilities generally used Oakland or other Bay Area port facilities more often." The Port of San Francisco container piers (80, 90-96) that lie outside the project area were the facilities reported as used most frequently by project area maritime-related businesses; other piers within Mission Bay (48, 50, and 54) were used by fewer businesses.

CURRENT DESIGNATION OF MISSION BAY WATERFRONT AS A PORT PRIORITY AREA

The San Francisco Bay Area Seaport Plan (1982), a joint product of the Metropolitan Transportation Commission and the San Francisco Bay Conservation and Development Commission (BCDC), designated as a "port priority use area" that portion of Mission Bay east of Third Street. According to the Plan (page 16), "Port priority use areas include within their premises marine terminals and directly-related ancillary activities such as container freight stations, transit sheds and other temporary storage, ship repairing, support transportation uses including trucking and railroad yards, freight forwarders, government offices related to the port activity, chandlers and marine services."

An interview with Randall Rossi, a planning consultant for the SF Port Authority, suggested that the Authority was "very concerned" about Mission Bay. Mr. Rossi indicated that most of the warehousing and transportation businesses located in Mission Bay are associated with container freight and that loss of such businesses might have a detrimental effect on the port's ability to provide a full-service facility.

The concern of BCDC and the SF Port Authority over current or potential maritime-related activities in Mission Bay is likely to be alleviated if plans to modernize its container freight facilities along the southern Waterfront at Piers 80 and 94-96. The Port is proposing three cargo-handling facility improvements and a waterfront open space area. It is likely that the city will have to make trade-offs south of Mission Bay to ensure development of planned port facilities surrounding Piers 70 and 80 in order to ensure nonmaritime development of the Mission Bay site east of Third Street to the waterfront. According to the Chief of Planning of the San Francisco Bay Conservation and Development Commssion, "If the port priority plan stays the way it is, Mission Bay cannot happen."

Development of the proposed container freight station facilities south of Mission Bay might also provide a home for maritime-related establishments currently located in Mission Bay and dependent on that location for access to immediate port facilities.

MARITIME AND MISSION BAY

The combined effects of higher rents in the developed Mission Bay project, potential availability of new sites for businesses in a planned port project south of the planned Mission Bay project, and the level of reported use of SF Port facilities relative to others in the Bay suggest that maritime-related uses are unlikely to be a good candidate for significant employment in Mission Bay.

THE POLITICAL GEOGRAPHY OF THE BAY AREA

Most metropolitan areas in the United States are a patchwork of city and county jurisdictions. Urban growth has made old boundaries seem artificial: lines on a map that do not correlate with discernible breaks in urban development. However, it would be wrong to view cities solely as contiguous urban areas. The patchwork of jurisdictions is important not only in terms of relative taxation rates and the cost of municipal services but in terms of the choices made by residents.

San Francisco is very different from other metropolitan centers in the West. For example, Table 20 contrasts San Francisco with Los Angeles.

Table 20

City and County Size - San Francisco and Los Angeles

	City and County of San Francisco	City of Los Angeles	County of Los Angeles
Land Area (square miles)	46.0	465.0	4,070.0
Population Density, 1980 (per square mile)	14,636.2	6,384.0	1,837.2

Source: U.S. Department of Commerce, City and County Data Book.

The City of Los Angeles is ten times the geographic area of San Francisco; the County of Los Angeles is almost 90 times the area of San Francisco. The City of Los Angeles has half the density of San Francisco and therefore decisions made about development are not as constrained by geography as they must inevitably be in San Francisco. Equally, at the Los Angeles county level the impact of development choices is diluted within a much wider geographic constituency. On balance, not only does Los Angeles have more room to grow but decision making at both the city and county level is less constrained by a "small backyard."

A similar argument can be made for the surrounding Bay Area counties for the longer term. Table 21 compares six Bay Area counties with four counties in the Los Angeles basin. As densities rise, individual communities and counties are faced with harder development decisions. Residents who feel the area has achieved an appropriate balance between job opportunities, cost, and life-style may seek to limit further development. It seems likely that these limits will be reached earlier in Contra Costa than in Riverside or San Bernardino.

Table 21

Counties in the Bay Area and the Los Angeles Basin

	Geographic Area (Square Miles)	Population Density (per Square Mile) 1980
Bay Area		
Alameda	736	1,501
Contra Costa	730	900
Marin	523	426
San Francisco	46	14,636
San Mateo	447	1,315
Santa Clara	1,293	1,002
	3,775	
Los Angeles Basin		
Los Angeles	4,070	1,837
Orange	798	2,422
Riverside	7,214	92
San Bernardino	20,064	45
	32,146	

Source: U.S. Department of Commerce, City and County Data Book.

Within metropolitan jurisdictions that have large geographic areas and lower population density, there is more scope for gathering support for or, conversely, deflecting opposition to development initiatives. Any negative externalities will be felt by a small and relatively distant share of constituents. Most residents are not in close proximity to something that causes them concern.

The implications of this analysis for San Francisco and the Bay Area are significant. If this reasoning holds true, then this supports a forecast of continued expansion of Los Angeles relative to the Bay Area. It also helps explain the apparently higher degree of politicization that surrounds development in the Bay Area and signals a comparative advantage that may be held by other southern California cities such as San Diego.

PART 2

BUSINESS ANALYSIS

BUSINESS ANALYSIS

This section examines the outlook for 18 business sector that have been, or are likely to be, the most dynamic providers of employment for San Francisco or Mission Bay. They have been selected because of their historical importance in San Francisco, in other urban areas, or in areas comparable to the Mission Bay site. These business sectors include:

- Manufacturing
    - Apparel
    - Printing/Publishing
- Communications/Utilities
    - Communications
    - Electricity, Gas, and Sanitation Services
- Trade
    - Wholesale Trade
    - Retail Trade
- Tourism
    - Restaurants and Bars
    - Hotels and Other Lodging
    - Amusement and Recreation
- Finance
    - Banks
    - Other Credit Agencies
    - Security/Commodity Brokers
    - Insurance
- Business and Professional Services
    - Business Services
    - Legal Services
    - Miscellaneous Services

For each business section, we have forecast likely employment growth in the United States as a whole and in San Francisco; described the major assumptions behind

MANUFACTURING

APPAREL (SIC 23)

FORECAST

Employment Growth (in thousands)

	United States	San Francisco
1973	1,438.1	9.6
1980	1,263.5	12.4*
1985	1,162.0	12.2
1990	1,077.0	12.4-12.6
1995	999.0	12.6-13.0
2000	926.0	12.8-13.5

Employment Growth (average annual rate)

	United States	San Francisco
1974-80	-1.8	3.2
1981-85	-1.7	-0.3
1986-95	-1.5	0.5

*EDD changes recording data from average annual to December of each year for all subsequent years

APPAREL (SIC 23)

RATIONALE FOR THE FORECAST

- The California style (basically women's sportswear) is finding national markets and will continue to grow.
- The continuation of California as an immigrant economy will work to the benefit of the apparel industry if appropriate space can be found (i.e., cheap space near the city center).
- The growth of San Francisco and Los Angeles as art and design centers will benefit the high value-added part of the apparel industry.
- Technology improvements could help keep some processes in California.
- Trade protectionism may help to a very limited degree (the international textile agreement gives foreign producers an incentive to move into higher value-added products such as women's sportswear).
- Los Angeles will provide strong competition for employment in the industry.

APPAREL (SIC 23)

Employment

(Thousands)

	United States	California	San Francisco
1973	1,438.1	89.8	9.6
1974	1,362.6	91.5	9.4
1975	1,243.3	91.6	9.2
1976	1,318.1	99.8	10.1
1977	1,316.3	101.3	10.2
1978	1,332.3	109.6	10.9
1979	1,304.3	110.6	11.8
1980	1,263.5	106.5	12.0
1981	1,244.4	107.7	11.4
1982	1,161.1	102.4	11.6
1983	1,163.4	103.2	12.2
1984	1,196.6	108.0	11.4
1985 (est.)	1,162.0	107.5	12.2

Employment Growth

(Annual Average Growth Rates)

	United States	California	San Francisco
1973-80	-1.8	2.5	3.2
1981-85	-1.7	0.2	-0.3

Sources: U.S.: Bureau of Labor Statistics, Employment and Earnings
California: Employment Development Department,
Wage & Salary Employment
San Francisco: Employment Development Department,
Wage & Salary Employment

APPAREL (SIC 23)

Structure of Business: Establishments by Size

(Percent Distribution by Size of Establishment)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	45.4	55.6	55.8	55.5	66.3	66.0
20-49	25.1	27.7	30.4	20.4	21.5	20.7
50-99	14.1	10.5	8.5	11.4	7.8	8.9
100-249	10.4	5.2	4.2	8.8	3.3	3.1
250-499	3.8	0.6	0.4	3.0	0.9	1.3
500+	1.2	0.4	0.7	0.9	0.2	----
	100.0	100.0	100.0	100.0	100.0	100.0

(Percent Distribution by Number of Employees)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	5.6	13.1		7.1	17.9	
20-49	13.4	25.4		13.3	26.2	
50-99	16.1	21.1		16.4	21.0	
100-249	26.8	23.6		28.3	18.9	
250-499	21.6	6.5		20.6	11.0	
500+	16.5	10.3		14.3	5.0	
	100.0	100.0		100.0	100.0	

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

APPAREL (SIC 23)

Occupational Mix in San Francisco

	Percent
Managers and officers	3.8
Professional occupations (accountants, analysts, etc.)	1.8
Technical occupations (programmers, etc.)	0.1
Sales workers	0.6
Service occupations (guards, etc.)	3.5
Production occupations	77.5
Administrative support and clerical occupations	12.6

Source: California Employment Development Department, Occupations in Selected Industries, San Francisco.

APPAREL (SIC 23)

Factors Affecting Growth

- Foreign competition has increased markedly over the last decade due to:
    - Labor intensity of cut and sew operations
    - Growing sophistication of production in East Asia
    - Establishment of quality image of foreign products

Locational Trends

- California has been able to take advantage of three factors to buck the national trend of decline in employment in women's sportswear:
    - It can produce garments with a high design content-Los Angeles and San Francisco are outstanding centers of design.
    - It can produce garments quickly in response to fashion changes and get them to the shelf before foreign producers in an industry in which timeliness counts.
    - It can produce quality garmetns cheaply because of the recent waves of immigration from Asia and Latin America.
- The apparel revival in California is basically an urban phenomenon: 85% of California production is in Los Angeles and San Francisco counties.

PRINTING/PUBLISHING (SIC 27)

FORECAST

Employment Growth (in thousands)

	United States	San Francisco
1973	1,110.7	9.1
1980	1,252.1	9.1*
1985	1,422.0	8.5
1990	1,532.0	8.5-8.7
1995	1,650.0	8.5-8.9
2000	1,776.0	8.5-9.1

Employment Growth (average annual rate)

	United States	San Francisco
1974-80	1.7	-0.3
1981-85	2.6	-1.4
1986-95	1.5	0.0-0.5

*EDD changes recording data from average annual to December of each year for all subsequent years

PRINTING/PUBLISHING (SIC 27)

RATIONALE FOR THE FORECAST

-- Technology permits this industry to go where the business is and increasingly it is where people and jobs are. Big growth in suburban weeklies, local business advertising, and business communication.

-- San Francisco should be able to hold on to some big users--finance, insurance, legal, advertisers, tourists, designers--through competition from desktop publishing and electronic substitutes.

PRINTING/PUBLISHING (SIC 27)

Employment
(Thousands)

	United States	California	San Francisco
1973	1,110.7	96.2	9.1
1974	1,111.3	97.6	8.8
1975	1,083.4	94.6	8.4
1976	1,099.2	98.0	8.1
1977	1,141.4	103.3	8.1
1978	1,192.0	112.4	8.1
1979	1,235.1	118.9	8.5
1980	1,252.1	123.2	8.9
1981	1,266.3	125.1	9.3
1982	1,272.1	124.5	9.0
1983	1,295.8	128.3	9.2
1984	1,372.4	136.5	8.7
1985 (est.)	1,422.0	139.4	8.5

Employment Growth
(Annual Average Growth Rates)

	United States	California	San Francisco
1973-80	1.7	3.6	-0.3
1981-85	2.6	2.5	-1.4

Sources: U.S.: Bureau of Labor Statistics, Employment and Earnings
California: Employment Development Department, Wage & Salary Employment
San Francisco: Employment Development Department, Wage & Salary Employment

PRINTING/PUBLISHING (SIC 27)

Structure of Business: Establishments by Size

(Percent Distribution by Size of Establishment)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19				79.3	82.7	80.6
20-49				11.8	10.5	14.0
50-99				4.8	3.7	3.0
100-249				2.8	2.3	1.5
250-499				0.8	0.5	0.7
500+				0.5	0.3	0.2
				100.0	100.0	100.0

(Percent Distribution by Number of Employees)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19				18.0	21.5	
20-49				14.8	16.8	
50-99				13.7	13.0	
100-249				17.6	18.5	
250-499				11.2	9.5	
500+				24.7	20.7	
				100.0	100.0	

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

PRINTING/PUBLISHING (SIC 27)

Occupational Mix in San Francisco

	Percent
Managers and officers	9.4
Professional occupations (accountants, analysts, etc.)	11.8
Technical occupations (programmers, etc.)	0.7
Sales workers	6.7
Service occupations (guards, etc.)	1.5
Production occupations	51.5
Administrative support and clerical occupations	18.4

Source: California Employment Development Department, Occupations in Selected Industries, San Francisco.

PRINTING/PUBLISHING (SIC 27)

Factors Affecting Growth

- Technology has been biggest factor in changing employment pattern of industry:
  - New photo and computer composition
  - New binding equipment
  - New electronic data links.
- Fall in operating and clerical personnel but increase in technical, managerial, and sales workers.
- Flourishing of demand for small, flexible presses and new magazines.
- New advertising outlets in direct mail and inserts.

Locational Trends

- Industry is becoming more mobile and the old concentration in the northeast of the country or in major cities is changing as technology produces smaller, better quality presses.
- Cities are losing concentration of newspapers, magazines, banks, and business advertising.

COMMUNICATION/UTILITIES

COMMUNICATIONS (SIC 48)

FORECAST

Employment (in thousands)

	United States	San Francisco
1973	1,125.2	15.5
1980	1,266.1	19.6
1985	1,330.7	15.9
1990	1,364.3	16.1-16.5
1995	1,433.9	16.6-17.7
2000	1,507.0	16.9-18.3

Employment Growth (average annual rate)

		United States	San Francisco
	1974-80	1.7	3.4
	1981-85	1.0	-4.1
Trend forecast	1986-2000	0.8	0.3-0.7

*EDD changes recording data from average annual to December of each year for all subsequent years

COMMUNICATIONS (SIC 48)

RATIONALE FOR THE FORECAST

U.S. Outlook

-- The number and types of telephone services and related revenues are increasing, but employment in this sector remains relatively constant.

-- Other subsectors of communications (radio and TV broadcasting) and new telecommunications services will increase revenues and employment. Growth in new services is small due to increased competitive pressures from the regional telephone operating companies.

San Francisco Outlook

-- The large decline experienced by San Francisco between 1980 and 1985 is a one-time phenomenon associated with the movement of a large number of Pacific Bell employees to San Ramon. No further major outward movement is expected, nor is any major hiring effort expected on the part of that company.

-- Some new growth is expected in new telecommunications-related services for business and residential customers.

COMMUNICATIONS (SIC 48)

Structure of Business: Establishments by Size

(Percent Distribution by Size of Establishment)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	67.8	62.1	51.2	64.8	51.9	44.9
20-49	15.8	18.7	19.5	17.4	19.6	24.5
50-99	6.7	6.5	4.9	7.5	10.1	10.2
100-249	5.1	4.6	12.2	6.1	9.2	8.3
250-499	2.2	3.0	7.3	2.5	5.4	4.0
500+	2.4	5.1	4.9	1.7	3.8	8.2
	100.0	100.0	100.0	100.0	100.0	100.0

(Percent Distribution by Number of Employees)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	6.1	2.5		7.9	3.7	
20-49	5.4	2.9		9.9	6.3	
50-99	5.4	2.1	n/a	9.7	7.7	n/a
100-249	8.8	3.6		17.6	15.4	
250-499	8.4	5.1		15.9	19.9	
500+	65.9	83.8		39.0	47.0	
	100.0	100.0		100.0	100.0	

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

COMMUNICATIONS (SIC 48)

Factors Affecting Growth

- The number and types of communications services are increasing along with revenues.
- A shakeout in the telephone and telegraph services is expected during the next few years--including additional mergers, acquisitions and dropouts, and growing dominance of AT&T and IBM/MCI.
- Reduced labor requirements for the production, testing, and maintenance of equipment, coupled with increased competitive pressures, will allow the telephone/telegraph industry to expand while forcing a slight reduction in the work force.
- Some new employment will be generated by new applications of communications technology for business and home services including, for example, electronic mail, electronic yellow pages, home shopping, and other consumer and business services.

Locational Trends

- As regulatory issues sort out over the next five years, increasing numbers and types of services will be provided by the seven regional telephone operating companies--including Pacific Bell.
- Pacific Bell has no immediate plans to reduce the number of employees still located in San Francisco, although it does intend to relocate employees within the city to maximize use of company-owned real estate.
- Some increase in local radio and television employment may result from an increase in locally based advertising.

ELECTRICITY, GAS, AND SANITATION SERVICES (SIC 49)

FORECAST

Employment (in thousands)

	United States	San Francisco
1973	729.3	7.5
1980	827.4	8.7
1985	900.0	9.4
1990	945.9	9.8-9.9
1995	994.2	10.2-10.4
2000	1,044.9	10.6-10.9

Employment Growth (average annual rate)

	United States	San Francisco
1974-80	1.8	1.3
1981-85	1.4	1.4
1986-2000	1.0	0.8-1.0

*EDD changes recording data from average annual to December of each year for all subsequent years

ELECTRICITY, GAS, AND SANITATION SERVICES (SIC 49)

RATIONALE FOR THE FORECAST

U.S. Outlook

-- Basic utility infrastructure will grow at the rate of population growth.

-- Diversification in services that may add employment will be offset by potential deregulation and competition.

San Francisco Outlook

-- Relatively slow growth.

-- Critical role played by decisions of PG&E.

-- Their commitment to a San Francisco location appears to be strong.

-- Some potential for consolidation of space.

-- These utilities have a very high proportion of back-office function--approximately 70%.

ELECTRICITY, GAS, AND SANITATION SERVICES (SIC 49)

Employment
(Thousands)

	United States	California	San Francisco
1973	729.3	65.9	7.5
1974	742.6	65.7	7.6
1975	731.1	63.8	7.8
1976	733.0	62.7	7.7
1977	745.7	63.8	7.3
1978	776.7	67.6	7.6
1979	805.7	69.8	8.2
1980	827.4	70.4	8.7*
1981	852.5	72.2	8.9
1982	875.9	72.4	8.6
1983	881.9	74.9	8.4
1984	898.9	78.0	8.8
1985 (est.)	900.0	80.7	9.4

Employment Growth
(Annual Average Growth Rates)

	United States	California	San Francisco
1973-80	1.8	0.7	1.3
1981-85	1.4	2.8	1.4

Sources: U.S.: Bureau of Labor Statistics, Employment and Earnings
California: Employment Development Department, Wage & Salary Employment
San Francisco: Employment Development Department, Wage & Salary Employment

*EDD changes data recording from average annual to December of each year for all subsequent years.

ELECTRICITY, GAS, AND SANITATION SERVICES (SIC 49)

Structure of Business: Establishments by Size

(Percent Distribution by Size of Establishment)

Employment Size	1973 U.S.	1973 Calif.	1973 San Francisco	1983 U.S.	1983 Calif.	1983 San Francisco
1-19	67.4	80.7	76.9	69.8	24.2	57.1
20-49	16.7	8.5	----	14.6	11.4	14.2
50-99	7.2	4.2	----	7.3	7.1	----
100-249	4.9	2.8	7.7	5.0	4.3	14.2
250-499	1.9	1.5	7.7	1.7	1.5	7.0
500+	1.9	2.3	7.7	1.4	1.5	7.0
	100.0	100.0	100.0	100.0	100.0	100.0

(Percent Distribution by Number of Employees)

Employment Size	1973 U.S.	1973 Calif.	1973 San Francisco	1983 U.S.	1983 Calif.	1983 San Francisco
1-19	6.5	5.5	n/a	8.4	----	n/a
20-49	9.4	4.2		9.9	7.2	
50-99	8.9	4.5		11.1	10.7	
100-249	13.5	6.6		16.5	13.1	
250-499	11.7	8.6		12.7	11.0	
500+	50.1	70.6		41.3	40.9	
	100.0	100.0		100.0	100.0	

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

ELECTRICITY, GAS, AND SANITATION SERVICES (SIC 49)

Occupational Mix in California

	Percent
Managers and officers	
Professional occupations (accountants, analysts, etc.)	
Technical occupations (programmers, etc.)	
Sales workers	n/a
Service occupations (guards, etc.)	
Production occupations	
Administrative support and clerical occupations	

Source: California Employment Development Department, Occupations in Selected Industries, San Francisco.

ELECTRICITY, GAS, AND SANITATION SERVICES (SIC 49)

Factors Affecting Growth

-- Large-scale organizations operating in relatively stable protected markets.

-- Very large establishment size for this sector.

-- Systems maintenance type of operations that have large back-office components.

-- Heavy staff component.

Locational Trends

-- Great back-office candidate but that are perhaps more loyal to downtown locations.

TRADE

WHOLESALE TRADE (SIC 50-51)

FORECAST

Employment (in thousands)

	United States	San Francisco
1973	4,277	37.4
1980	5,275	37.2
1985	5,550	35.5
1990	5,804	35.9-36.4
1995	6,284	6.1-36.8
2000	6,284	36.2-37.0

Employment Growth (average annual rate)

		United States	San Francisco
	1973-80	3.04	-0.08
	1981-85	1.02	-0.93
Trend forecast	1986-2000	0.83	0.13-0.28

*EDD changes recording data from average annual to December of each year for all subsequent years

WHOLESALE TRADE (SIC 50-51)

RATIONALE FOR THE FORECAST

U.S. Outlook

-- Increased automation of materials handling, transportation, and order-entry functions.

-- Lower inventory holdings per warehouse site.

-- Increase in multiline distributors.

-- Growth in value-added information systems provided by distributors.

San Francisco Outlook

-- Continued decline in traditional warehouse and distribution facilities.

-- Slow port activity growth relative to other Bay locations.

-- Increase in sales/manufacturer representative activities.

WHOLESALE TRADE (SIC 50-51)

Employment
(Thousands)

	United States	California	San Francisco
1973	4,277	441.3	37.4
1974	4,433	460.6	37.9
1975	4,415	465.9	38.1
1976	4,546	485.3	37.4
1977	4,708	507.5	37.9
1978	4,969	534.3	37.1
1979	5,204	564.1	37.3
1980	5,275	583.7	37.2
1981	5,358	590.6	35.8
1982	5,278	582.1	34.3
1983	5,259	603.8	34.0
1984	5,550	643.4	35.7
1985	5,769	670.3	35.5

Employment Change
(Annual Average Growth Rates)

	United States	California	San Francisco
1973-80	3.04	4.08	-0.08
1981-85	1.02	3.22	-0.93

Sources: U.S.: Bureau of Labor Statistics, Employment and Earnings
California: Employment Development Department,
Wage & Salary Employment
San Francisco: Employment Development Department,
Wage & Salary Employment

WHOLESALE TRADE (SIC 50-51)

Structure of Business: Establishments by Size

(Percent Distribution by Size of Establishment)

Employment Size	1973 U.S.	1973 Calif.	1973 San Francisco	1983 U.S.	1983 Calif.	1983 San Francisco
1-19	82.6	81.0	79.9	86.5	85.6	86.0
20-49	12.3	12.7	12.6	9.9	10.1	9.3
50-99	3.4	3.9	4.5	2.4	2.8	3.5
100-249	1.3	1.8	2.4	0.9	1.2	0.7
250-499	0.3	0.5	0.4	0.2	0.2	0.3
500+	0.1	0.1	0.2	0.1	0.1	0.2
	100.0	100.0	100.0	100.0	100.0	100.0

(Percent Distribution by Number of Employees)

Employment Size	1973 U.S.	1973 Calif.	1973 San Francisco	1983 U.S.	1983 Calif.	1983 San Francisco
1-19	33.4	29.2	n/a	39.9	n/a	n/a
20-49	24.4	23.3		24.8	23.8	
50-99	15.7	16.0		13.6	15.3	
100-249	13.8	16.1		11.7	13.5	
250-499	6.1	9.3		5.1	6.5	
500+	5.5	6.1		4.9	n/a	
	100.0	100.0		100.0	100.0	

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

WHOLESALE TRADE (SIC 50-51)

Occupational Mix in San Francisco

	Percent
Managers and officers	13.4
Professional occupations (accountants, analysts, etc.)	10.2
Technical occupations (programmers, etc.)	4.8
Sales workers	21.5
Service occupations (guards, etc.)	1.4
Production occupations	18.4
Administrative support and clerical occupations	30.4

Source: California Employment Development Department, Occupations in Selected Industries, San Francisco.

WHOLESALE TRADE (SIC 50-51)

Factors Affecting Growth

-- Growth of wholesale trade is usually associated with growth in transportation and port activity, manufacturing and retail trade.

-- Employment levels in wholesale trade, regardless of economic conditions, tend to remain relatively stable over time. Two reasons for this are that: (1) the customers of most wholesale lines are so diverse that a slump in one consumer market does not hurt enough to compel laying off large numbers of employees, and (2) during business recessions, most wholesale firms tend to reduce work levels rather than lay off people.

-- Wholesale trade is expected to achieve only moderate employment increases to 1995 due to increased use of automation for order-entry, inventory control, material handling, and route scheduling. By 1990, for example, 50% of merchant wholesalers will use computerized systems for delivery route scheduling and vehicle load planning.

Locational Trends

-- Wholesalers will continue to concentrate on high-volume urban and suburban areas.

-- There is a growing movement by wholesalers toward serving larger geographic regions and to increase the frequency and speed of delivery. This is likely to lead to the development of regional distribution centers on the fringes of metropolitan areas.

-- San Francisco is losing ground as a site for regional wholesale distribution because of the lack of low-cost warehouse space and for state and national distribution due to the growth of competing port facilities.

-- San Francisco employment in wholesale trade is not expected to grow substantially between now and 1995. However, changes in the composition of wholesale trade employment will be more dynamic than the total employment figures for this sector indicate.

-- Employment will continue to shift away from warehouse/distribution activities prevalent in the 1970s as these firms seek low-cost space outside the city. Declines in these activities will be met by a significant increase in employment in sales representation wholesale activities such as those typified by the Showplace Square development area. While Showplace Square employees represented an estimated 6% of wholesale trade employment in 1984, planned development suggests that it is likely to represent over 10% of wholesale trade employment by 1990.

RETAIL TRADE (SIC 52-57, 59)

FORECAST

Employment (in thousands)

	United States	San Francisco
1973	9,484	38.6
1980		43.1
1985	11,733	46.1
1990	13,081	51.2
1995	14,584	56.8
2000	16,230	62.2

Employment Growth (average annual rate)

	United States	San Francisco
1973-80		2.23
1981-85		1.35
1986-2000	2.19	2.02

*EDD changes recording data from average annual to December of each year for all subsequent years

RETAIL TRADE (SIC 52-57, 59)

Employment Growth Breakdown

	United States				San Francisco			
	Thousands				Thousands			
Category	1985	2000	Net Gain	Average Annual Growth (Percent)	1985	2000	Net Gain	Average Annual Growth (Percent)
52 Building Materials	687*	897	210	1.8	1.3	1.4	0.1	0.5
53 Department Stores	2,354	2,732	378	1.0	8.6	9.7	1.1	0.8
54 Food Stores	2,827	4,404	1,577	3.0	7.8	10.3	2.5	1.9
55 Auto Dealers/Service Stations	1,892	2,206	314	1.5	4.0	4.5	0.5	0.8
56 Apparel Stores	1,111*	1,348	237	1.3	8.9	12.4	3.5	2.2
57 Furniture Stores	616*	770	154	1.5	2.9	3.4	0.5	1.1
59 Miscellaneous Retail	2,246*	3,873	1,627	3.7	12.6	20.5	7.9	3.3
Total Business Services	11,733	16,230	4,497	2.2	46.1	62.2	16.1	2.0

*Estimated

RETAIL TRADE (SIC 52-57, 59)

RATIONALE FOR THE FORECAST

U.S. Outlook

-- Growth in upscale specialty stores and warehouse stores reflecting growth in upper and lower income populations and greater proportion of dual-income families. Move from "we" shopping to "me" shopping among middle- and upper-income families.

-- Some movement of warehouse clubs from remote locations to prime locations.

-- Slowdown in rate of population growth to 0.8% between 1990 and 1995 with increased percentage of population ages 35 to 50 reflecting the aging of the baby boomers. Over 13% of population will be 65 and older.

-- Continued high level of competition and declining profitability drives moves toward cutting variable costs and downscaling store size.

-- Increased efforts to carve out profitable niches drive growth in small shopping centers that house businesses serving specific customer groups.

-- Continued strong growth in miscellaneous retail, particularly in direct sales and mail order.

San Francisco Outlook

-- Basic retailing is a function of limited population in the city. A growing percentage of downtown sales comes from tourist trade.

-- Retail growth continues to lag behind state and national growth, reflecting fast growth in sunbelt markets and movement of day workers out of San Francisco. Reverse commuting is expected to average 25% of the workforce by 1995.

-- San Francisco is still a major sales area for the bay region, particularly in specialty items: jewelry, art, antiques, high-fashion clothes, and other specialty stores. Outlook for retail trade in San Francisco will be heavily affected by the health of the electrical components, computer, and instrumentation industries, which represent almost half of the manufacturing employment in the Bay Area.

- Opening of South of Market Street may increase the size of the downtown retail area beyond Union Square in high-end apparel and accessory stores.
- Growth in miscellaneous retail, including leather, jewelry, gift, and book stores increases at the fastest rate, reflecting San Francisco's position as a world destination and center for regional retail trade.
- Growth in direct sales and mail order continues, but not at the national average due to these retailers' need for warehouse space.

RETAIL TRADE (SIC 52-57, 59)

SUMMARY ANALYSIS

Employment
(Thousands)

	United States	California	San Francisco
1973	9,483.3	926.3	38.6
1974			
1975			
1976			
1977			
1978			
1979			
1980			43.1
1981			42.8
1982			41.4
1983	10,465.4	1,134.9	43.0
1984	11,181.0		45.2
1985	11,733.0		46.1

Employment Growth
(Annual Average Growth Rates)

	United States	California	San Francisco
1973-80			1.6
1981-85			1.3

Sources: U.S.: Bureau of Labor Statistics, Employment and Earnings
California: Employment Development Department, Wage & Salary Employment
San Francisco: Employment Development Department, Wage & Salary Employment

*EDD changes data recording from average annual to December of each year for all subsequent years.

RETAIL TRADE (SIC 52-57, 59)

Structure of Business: Establishments by Size

(Percent Distribution by Size of Establishment)

Employment Size	1973			1983		
	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	90.5	90.6	90.3	90.9	90.0	92.8
20-49	6.6	6.1	6.1	5.9	6.4	5.1
50-99	1.7	1.9	1.8	2.0	2.5	1.4
100-249	0.8	0.9	1.3	0.9	0.9	0.4
250-499	0.2	0.3	0.2	0.2	0.2	0.2
500+	0.2	0.2	0.3	0.1	----	0.1
	100.0	100.0	100.0	100.0	100.0	100.0

(Percent Distribution by Number of Employees)

Employment Size	1973			1983		
	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	38.4	33.9		44.4	41.8	
20-49	16.9	14.2		18.2	18.2	
50-99	10.1	9.7	n/a	13.9	15.7	n/a
100-249	10.3	9.8		13.4	12.8	
250-499	7.1	6.7		5.6	(7.6)	
500+	17.2	25.7		4.5	(3.9)	
	100.0	100.0		100.0	100.0	

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

RETAIL TRADE (SIC 59-59)

Occupational Mix in San Francisco

	Percent
Managers and officers	7.9
Professional occupations (accountants, analysts, etc.)	3.5
Technical occupations (programmers, etc.)	
Sales workers	25.3
Service occupations (guards, etc.)	38.4
Production occupations	9.9
Administrative support and clerical occupations	15.1

Source: California Employment Development Department, Occupations in Selected Industries, San Francisco.

RETAIL TRADE: GENERAL MERCHANDISE/DEPARTMENT STORES (SIC 53)

Factors Affecting Growth

-- Firms in this category continue to face increasing competition and assaults on customer base.

-- Most important factor is competition from specialty and off-price apparel retailers targeted at affluent consumers ages 25 to 44 with high discretionary income.

Locational Trends

-- San Francisco has the second highest cost retail space in the United States.

-- General merchandise sales and employment will remain relatively flat due to increased exodus of work day population to the suburbs and increased emphasis on specialty stores.

RETAIL TRADE: GENERAL MERCHANDISE/DEPARTMENT STORES (SIC 53)

Employment
(Thousands)

	United States	California	San Francisco
1973	2,229.3	212.2	6.9
1974	2,209.5	214.0	7.2
1975	2,113.0	208.8	6.8
1976	2,155.3	215.1	7.2
1977	2,204.3	224.7	7.5
1978	2,307.8	235.2	7.8
1979	2,287.4	239.4	7.6
1980	2,244.6	240.2	8.3*
1981	2,230.0	241.5	9.5
1982	2,183.8	230.3	9.0
1983	2,161.3	232.9	9.2
1984	2,278.0	237.4	8.8
1985	2,354.0	240.0	8.6

Employment Growth
(Annual Average Growth Rates)

	United States	California	San Francisco
1973-80	0.1	1.79	2.67
1981-85	1.0	-0.02	0.71

Sources: U.S.: Bureau of Labor Statistics, Employment and Earnings
California: Employment Development Department, Wage & Salary Employment
San Francisco: Employment Development Department, Wage & Salary Employment

*EDD changes data recording from average annual to December of each year for all subsequent years.

RETAIL TRADE: GENERAL MERCHANDISE/DEPARTMENT STORES (SIC 53)

Structure of Business: Establishments by Size

(Percent Distribution by Size of Establishment)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	78.1	77.9	81.4	61.9	54.6	79.5
20-49	10.6	10.5	9.9	11.4	8.4	7.3
50-99	4.8	4.1	2.3	10.4	8.1	2.4
100-249	3.8	3.6	3.5	12.5	20.2	2.4
250-499	1.5	1.7	----	3.1	8.1	3.6
500+	1.2	2.2	2.9	0.7	0.6	4.8
	100.0	100.0	100.0	100.0	100.0	100.0

(Percent Distribution by Number of Employees)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	10.9	7.3		6.7	(3.8)	
20-49	8.7	5.8		7.5	3.2	
50-99	8.7	5.0	n/a	14.9	7.8	n/a
100-249	15.2	10.2		39.0	44.8	
250-499	13.5	10.8		21.4	34.2	
500+	43.0	60.9		10.5	(6.2)	
	100.0	100.0		100.0	100.0	

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

RETAIL TRADE: DEPARTMENT STORES (SIC 531)

Employment
(Thousands)

	United States	California	San Francisco
1973	1,768.3		
1974	1,757.8		
1975	1,693.8		
1976	1,731.3		
1977	1,785.7		
1978	1,889.5		
1979	1,878.1		
1980	1,871.1		
1981	1,871.8		
1982	1,838.8		
1983	1,830.8		
1984			
1985			

Employment Growth
(Annual Average Growth Rates)

	United States	California	San Francisco
1973-80	8.1		
1981-85			

Sources: U.S.: Bureau of Labor Statistics, Employment and Earnings
California: Employment Development Department, Wage & Salary Employment
San Francisco: Employment Development Department, Wage & Salary Employment

*EDD changes data recording from average annual to December of each year for all subsequent years.

RETAIL TRADE: DEPARTMENT STORES (SIC 531)

Structure of Business: Establishments by Size

(Percent Distribution by Size of Establishment)

Employment Size	1973 U.S.	1973 Calif.	1973 San Francisco	1983 U.S.	1983 Calif.	1983 San Francisco
1-19	----	----	----	----	----	----
20-49	18.6	14.5	11.1	12.2	2.8	----
50-99	24.8	13.3	11.1	28.9	16.2	----
100-249	29.1	24.7	33.3	44.9	56.3	12.5
250-499	14.1	20.5	----	11.6	22.8	37.5
500+	13.4	27.0	44.5	2.4	1.9	50.5
	100.0	100.0	100.0	100.0	100.0	100.0

(Percent Distribution by Number of Employees)

Employment Size	1973 U.S.	1973 Calif.	1973 San Francisco	1983 U.S.	1983 Calif.	1983 San Francisco
1-19				----		
20-49				3.0		
50-99				13.8		
100-249				45.1		
250-499				25.5		
500+				12.6		
				100.0		

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

RETAIL TRADE: DEPARTMENT STORES (SIC 531)

Occupational Mix in San Francisco

	Percent
Managers and officers	2.7
Professional occupations (accountants, analysts, etc.)	1.2
Technical occupations (programmers, etc.)	
Sales workers	59.3
Service occupations (guards, etc.)	16.6
Production occupations	6.8
Administrative support and clerical occupations	13.4

Source: California Employment Development Department, Occupations in Selected Industries, San Francisco.

RETAIL TRADE: VARIETY STORES (SIC 533)

Employment
(Thousands)

	United States	California	San Francisco
1973	310.6		
1974	307.6		
1975	278.2		
1976	282.9		
1977	287.4		
1978	286.4		
1979	276.4		
1980	251.7		
1981	233.6		
1982	227.6		
1983	210.8		
1984			
1985			

Employment Growth
(Annual Average Growth Rates)

	United States	California	San Francisco
1973-80	-2.96		
1981-85			

Sources: U.S.: Bureau of Labor Statistics, Employment and Earnings
California: Employment Development Department, Wage & Salary Employment
San Francisco: Employment Development Department, Wage & Salary Employment

*EDD changes data recording from average annual to December of each year for all subsequent years.

RETAIL TRADE: VARIETY STORES (SIC 533)

Structure of Business: Establishments by Size

(Percent Distribution by Size of Establishment)

Employment Size	1973 U.S.	1973 Calif.	1973 San Francisco	1983 U.S.	1983 Calif.	1983 San Francisco
1-19	76.6	72.8	84.6	82.1	82.2	82.1
20-49	12.5	12.0	7.7	13.5	14.2	14.3
50-99	5.0	7.0	----	3.6	2.7	----
100-249	4.1	5.2	5.1	0.8	0.9	3.6
250-499	1.2	1.4	----	----	----	----
500+	0.6	1.6	2.6	----	----	----
	100.0	100.0	100.0	100.0	100.0	100.0

(Percent Distribution by Number of Employees)

Employment Size	1973 U.S.	1973 Calif.	1973 San Francisco	1983 U.S.	1983 Calif.	1983 San Francisco
1-19				41.3		
20-49				31.4		
50-99				18.1		
100-249				8.5		
250-499				0.7		
500+				----		
				100.0		

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

RETAIL TRADE: MAIL ORDER HOUSES (SIC 532/5961)

Structure of Business:
Establishments by Size

(Percent Distribution by Size of Establishment)

Employment Size	1973 U.S.	1973 Calif.	1973 San Francisco	1983 U.S.	1983 Calif.	1983 San Francisco
1-19	83.7	83.8	76.5	88.4	89.6	86.1
20-49	11.5	8.9	17.6	6.8	7.6	11.1
50-99	2.4	5.0	5.9	2.7	1.8	----
100-249	1.1	1.0	----	0.9	0.6	2.8
250-499	0.5	----	----	0.3	0.1	----
500+	0.8	1.3	----	0.4	0.3	----
	100.0	100.0	100.0	100.0	100.0	100.0

(Percent Distribution by Number of Employees)

Employment Size	1973 U.S.	1973 Calif.	1973 San Francisco	1983 U.S.	1983 Calif.	1983 San Francisco
1-19				30.8		
20-49				14.0		
50-99				9.9		
100-249				9.2		
250-499				8.0		
500+				28.1		
				100.0		

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

RETAIL TRADE: DIRECT SELLING ORGANIZATIONS (SIC 535/5963)

Structure of Business: Establishments by Size

(Percent Distribution by Size of Establishment)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	87.8	90.1	80.0	85.1	85.1	66.7
20-49	9.5	8.3	20.0	12.1	12.0	33.3
50-99	1.9	1.1	----	2.2	2.5	----
100-249	0.7	0.4	----	0.5	0.4	----
250-499	----	0.1	----	0.1	----	----
500+	0.1	----	----	----	----	----
	100.0	100.0	100.0	100.0	100.0	100.0

(Percent Distribution by Number of Employees)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19				38.3		
20-49				36.4		
50-99				14.5		
100-249				6.4		
250-499				1.8		
500+				2.6		
				100.0		

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

RETAIL TRADE: APPAREL AND ACCESSORY STORES (SIC 56)

Employment
(Thousands)

	United States	California	San Francisco
1973			76.1
1974			7.1
1975			6.7
1976			7.0
1977			7.2
1978			7.4
1979			7.5
1980			7.5
1981			8.0
1982			7.8
1983			7.8
1984			8.5
1985			8.9

Employment Growth
(Annual Average Growth Rates)

	United States	California	San Francisco
1973-80			-0.19
1981-85			2.70

Sources: U.S.: Bureau of Labor Statistics, Employment and Earnings
California: Employment Development Department,
Wage & Salary Employment
San Francisco: Employment Development Department,
Wage & Salary Employment

*EDD changes data recording from average annual to December of each year for all subsequent years.

RETAIL TRADE: APPAREL AND ACCESSORY STORES (SIC 56)

Structure of Business: Establishments by Size

(Percent Distribution by Size of Establishment)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	90.8	90.3	83.5	94.8	95.2	95.6
20-49	7.0	7.0	11.2	4.2	3.8	3.4
50-99	1.5	1.6	2.5	0.8	0.8	0.8
100-249	0.6	0.8	1.7	0.2	0.2	0.1
250-499	0.1	0.2	0.8	----	----	----
500+	----	0.1	0.3	----	----	0.1
	100.0	100.0	100.0	100.0	100.0	100.0

(Percent Distribution by Number of Employees)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	51.0	47.2		69.8	70.3	
20-49	21.7	20.2		17.2	15.6	
50-99	10.5	10.8	n/a	7.8	7.1	n/a
100-249	9.2	10.8		4.0	3.8	
250-499	4.5	5.6		1.0	3.2	
500+	3.4	5.4		0.2	----	
	100.0	100.0		100.0	100.0	

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

RETAIL TRADE: APPAREL AND ACCESSORY STORES (SIC 56)

Occupational Mix in San Francisco

	Percent
Managers and officers	7.5
Professional occupations (accountants, analysts, etc.)	3.3
Technical occupations (programmers, etc.)	
Sales workers	55.3
Service occupations (guards, etc.)	8.4
Production occupations	8.1
Administrative support and clerical occupations	17.4

Source: California Employment Development Department, Occupations in Selected Industries, San Francisco.

RETAIL TRADE: APPAREL AND ACCESSORY STORES (SIC 56)

Factors Affecting Growth

- Increased proportion of elderly Americans with less interest in and need for clothing than younger working Americans.
- Decline in teenage population and its ability to set fashion trends.
- Increase in well-to-do population ages 35 to 50 affects sales positively, particularly with continued high female participation in the work force.

Locational Trends

- Continued increase in catalogue sales driven by consumers with less time and more money to spend in mid-age brackets.
- San Francisco's position as a West Coast design center may have a positive effect on retail locations and sales within the city.

RETAIL TRADE: FURNITURE AND HOME FURNISHINGS (SIC 57)

Employment
(Thousands)

	United States	California	San Francisco
1973			2.5
1974			2.4
1975			2.3
1976			2.4
1977			2.6
1978			2.7
1979			2.8
1980			3.1
1981			2.5
1982			2.1
1983			2.5
1984			2.8
1985			2.9

Employment Growth
(Annual Average Growth Rates)

	United States	California	San Francisco
1973-80			3.1
1981-85			3.78

Sources: U.S.: Bureau of Labor Statistics, Employment and Earnings
California: Employment Development Department, Wage & Salary Employment
San Francisco: Employment Development Department, Wage & Salary Employment

*EDD changes data recording from average annual to December of each year for all subsequent years.

RETAIL TRADE: FURNITURE AND HOME FURNISHINGS (SIC 57)

Structure of Business: Establishments by Size

(Percent Distribution by Size of Establishment)

Employment Size	1973			1983		
	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	9.36	93.7	94.6	96.5	96.2	96.0
20-49	5.1	4.7	3.4	3.0	3.1	3.8
50-99	0.9	0.9	0.8	0.4	0.6	0.2
100-249	0.3	0.6	1.2	0.1	0.2	----
250-499	0.1	0.1	----	0.0	----	----
500+	----	0.0	----	0.0	----	----
	100.0	100.0	100.0	100.0	100.0	100.0

(Percent Distribution by Number of Employees)

Employment Size	1973			1983		
	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	61.8	57.3		76.7	74.5	
20-49	19.6	17.7		15.1	15.4	
50-99	7.9	7.7	n/a	4.8	6.3	n/a
100-249	6.3	9.8		2.4	3.8	
250-499	1.8	7.5		1.0	----	
500+	1.6	----		----	----	
	100.0	100.0		100.0	100.0	

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

RETAIL TRADE: FURNITURE AND HOME FURNISHINGS (SIC 57)

Occupational Mix in San Francisco

	Percent
Managers and officers	13.1
Professional occupations (accountants, analysts, etc.)	3.4
Technical occupations (programmers, etc.)	----
Sales workers	35.8
Service occupations (guards, etc.)	0.6
Production occupations	22.5
Administrative support and clerical occupations	24.5

Source: California Employment Development Department, Occupations in Selected Industries, San Francisco.

RETAIL TRADE: FURNITURE AND HOME FURNISHINGS (SIC 57)

Factors Affecting Growth

-- Increase in new home construction over next several years encourages demand for home furnishings.

-- Changing size of family and corresponding home size continues to offer niches to retailers.

-- Aging of high-income baby boomers stimulates retail sales.

-- Increasing proportion of sales made by large multiunit firms.

-- Leveling of demand for computer-related furnishings over next few years as home PC market halts growth.

Locational Trends

-- Cost of land encourages movement of furniture retailing to suburban areas, but this is countered by use of video technology that allows stores to offer a broader range of unstocked products.

MISCELLANEOUS RETAIL TRADE (SIC 59)

SUMMARY ANALYSIS

Employment
(Thousands)

	United States	California	San Francisco
1973	1,342.0	142.4	7.2
1974			
1975			
1976			
1977			
1978			
1979			
1980			11.2
1981			10.9
1982			10.8
1983	1,933.9	223.2	11.5
1984			12.4
1985			12.6

Employment Growth
(Annual Average Growth Rates)

	United States	California	San Francisco
1973-80			6.5
1981-85			2.4

Sources: U.S.: Bureau of Labor Statistics, Employment and Earnings
California: Employment Development Department, Wage & Salary Employment
San Francisco: Employment Development Department, Wage & Salary Employment

*EDD changes data recording from average annual to December of each year for all subsequent years.

MISCELLANEOUS RETAIL TRADE (SIC 59)

Structure of Business:
Establishments by Size

(Percent Distribution by Size of Establishment)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	94.5	94.6	93.6	95.2	94.4	95.4
20-49	4.3	4.1	4.8	4.0	4.6	3.9
50-99	0.8	0.8	1.0	0.6	0.8	0.5
100-249	0.3	0.4	0.6	0.1	0.1	0.1
250-499	0.1	0.1	----	(0.1)	(0.1)	0.1
500+	----	----	----	----	----	----
	100.0	100.0	100.0	100.0	100.0	100.0

(Percent Distribution by Number of Employees)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	64.5	59.2		69.9	67.4	
20-49	8.3	16.2		18.2	20.6	
50-99	7.3	8.0	n/a	6.2	7.8	n/a
100-249	5.2	7.3		2.7	2.6	
250-499	2.9	(9.3)		(3.0)	(1.6)	
500+	2.3	----		(3.0)	(1.6)	
	100.0	100.0		100.0	100.0	

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

MISCELLANEOUS RETAIL TRADE (SIC 59)

Occupational Mix in San Francisco

	Percent
Managers and officers	11.4
Professional occupations (accountants, analysts, etc.)	6.9
Technical occupations (programmers, etc.)	0.2
Sales workers	45.1
Service occupations (guards, etc.)	3.1
Production occupations	9.5
Administrative support and clerical occupations	23.8

Source: California Employment Development Department, Occupations in Selected Industries, San Francisco.

TOURISM

TOURISM (SIC 58, 70, 79)*

FORECAST

Employment Growth (in thousands)

	United States	San Francisco
1973	4,423.9	32.8
1980	6,787.3	45.3
1985	7,868.0	52.5
1990	8,723.0	58.0-59.1
1995	9,692.0	64.0-66.6
2000	10,746.0	70.7-74.9

Employment Growth (average annual rate)

		United States	San Francisco
	1974-80	6.3	4.7
	1981-85	3.0	3.0
Trend Forecast	1986-2000	2.1	2.0-2.4

*SIC 58 - Restaurants and Bars; SIC 70 - Hotels and Other Lodgings; SIC 79 - Amusement and Recreation.

TOURISM (SIC 58, 70, 79)

Employment Growth Breakdown

	United States				San Francisco			
	Thousands			Average Annual Growth (Percent)	Thousands			Average Annual Growth (Percent)
Category	1985	1995	Net Gain		1985	1995	Net Gain	
58 Restaurants and Bars	5,692.0	6,939.0	1,247.0	2.0	32.3	39.4	7.1	2.0
70 Hotels	1,371.0	1,671.0	300.0	2.0	15.4	17.9	2.5	1.5
79 Amusement and Recreation	805.0	1,082.0	277.0	3.0	4.8	7.8	3.0	5.0
Total Tourism	7,868.0	9,692.0	1,824.0	2.1	52.5	65.1	12.6	2.2

TOURISM (SIC 58, 70, 79)

RATIONALE FOR THE FORECAST

U.S. Outlook

-- Aging of America and increasing disposable income will fuel continued growth in tourist spending.

-- Lower travel airfares and fuel prices over the short to medium term will keep domestic tourism levels high.

-- Threats of terrorism and other disturbances internationally will continue to have a positive effect on domestic travel.

-- Consolidation in the hotel market and increased competition will slow employment increases relative to spending increases.

-- A large component of restaurant increase is in fast food retailing; as markets saturate, employment growth is likely to stabilize.

San Francisco Outlook

-- San Francisco is a world class destination, particularly for older age groups and for conventions.

-- Decline in visitors from 1978 to 1983 has reversed, and steady, if unspectacular, growth can be envisaged.

-- Focus on capturing more of the tourist dollar--in particular, amusement and recreation activities and new dining experiences.

-- Revenue growth is likely to exceed employment growth.

RESTAURANTS AND BARS (SIC 58)

Employment
(Thousands)

	United States	California	San Francisco
1973	3,035		18.3
1974			18.9
1975			20.5
1976			21.8
1977			23.2
1978			24.7
1979			26.9
1980	4,948		28.7*
1981			29.1
1982			29.6
1983			30.1
1984	5,403		31.0
1985	5,692		32.3

Employment Growth
(Annual Average Growth Rates)

	United States	California	San Francisco
1974-80	7.2		6.2
1981-85	2.8		2.4

Sources: U.S.: Bureau of Labor Statistics, Employment and Earnings
California: Employment Development Department, Wage & Salary Employment
San Francisco: Employment Development Department, Wage & Salary Employment

*EDD changes data recording from average annual to December of each year for all subsequent years.

RESTAURANTS AND BARS (SIC 58)

Structure of Business: Establishments by Size

(Percent Distribution by Size of Establishment)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	84.2	83.2	84.6	78.2	76.4	82.5
20-49	11.8	12.8	12.1	16.6	17.3	12.6
50-99	2.9	2.9	2.1	4.5	5.2	3.8
100-249	0.8	0.8	1.0	0.7	1.0	1.1
250-499	0.2	0.2	0.2	----	0.1	----
500+	----	----	----	----	----	----
	100.0	100.0	100.0	100.0	100.0	100.0

(Percent Distribution by Number of Employees)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	37.4	35.5			29.9	
20-49	29.6	30.1			35.9	
50-99	15.6	14.2	n/a		9.2	n/a
100-249	9.9	8.9			9.2	
250-499	4.1	5.0			1.5	
500+	3.4	6.3			----	
	100.0	100.0			100.0	

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

RESTAURANTS AND BARS (SIC 58)

Occupational Mix in San Francisco

	Percent
Managers and officers	5.8
Professional occupations (accountants, analysts, etc.)	2.7
Technical occupations (programmers, etc.)	----
Sales workers	2.4
Service occupations (guards, etc.)	83.6
Production occupations	0.3
Administrative support and clerical occupations	5.2

Source: California Employment Development Department, Occupations in Selected Industries, San Francisco.

RESTAURANTS AND BARS (SIC 58)

Factors Affecting Growth

- Restaurants and bars have relatively low barriers to entry in an age of entrepreneurialism.
- Growth in fast food outlets has been a big component of the growth in this sector.
- Change in households and life-styles: for example, working women have fueled demand for fast food outlets; single households, divorce, and the decline of the family dinner also have contributed to growth in eating out.
- But, eating out also has increased as a recreation: the experience of gourmet dining.
- Continued growth in both fast food and restaurants/bars can be expected to be both tourist related and local consumer related.

Locational Trends

- Two sets of locational trends:
    - Fast food consumer outlets are driven; they are therefore population or traffic dependent: in neighborhoods or on ribbon developments.
    - Restaurants and bars--experience oriented and tied to the character of neighborhoods or to major centers/tourist traps.

HOTELS AND OTHER LODGING (SIC 70)

Employment
(Thousands)

	United States	California	San Francisco
1973	854.2	87.6	11.6
1974	877.7	87.1	11.4
1975	898.4	89.5	11.9
1976	929.4	93.7	13.2
1977	956.1	99.5	13.3
1978	988.0	106.5	13.8
1979	1,059.8	109.9	14.4
1980	1,075.8	113.1	15.4*
1981	1,119.0	119.6	13.7
1982	1,133.7	118.5	13.4
1983	1,173.9	123.1	13.6
1984	1,271.0	136.1	15.1
1985 (est.)	1,371.0	143.0	15.4

Employment Growth
(Annual Average Growth Rates)

	United States	California	San Francisco
1974-80	3.4	3.7	2.7
1981-85	5.0	4.8	0.0

Sources: U.S.: Bureau of Labor Statistics, Employment and Earnings
California: Employment Development Department, Wage & Salary Employment
San Francisco: Employment Development Department, Wage & Salary Employment

*EDD changes data recording from average annual to December of each year for all subsequent years.

HOTELS AND OTHER LODGING (SIC 70)

Structure of Business: Establishments by Size

(Percent Distribution by Size of Establishment)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	83.5	89.3	80.2	80.1	82.7	75.2
20-49	9.1	5.9	9.5	10.2	9.3	10.7
50-99	4.4	2.5	4.6	5.1	3.3	5.2
100-249	0.5	0.5	3.3	0.9	1.2	2.1
250-499	0.5	0.5	3.3	0.9	1.2	2.1
500+	0.3	0.2	1.2	0.5	0.5	2.7
	100.0	100.0	100.0	100.0	100.0	100.0

(Percent Distribution by Number of Employees)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	21.6	27.6			18.0	
20-49	16.5	13.5			12.7	
50-99	17.6	12.8	n/a		10.5	n/a
100-249	19.2	17.3			21.1	
250-499	10.9	14.4			18.0	
500+	14.2	14.4			19.7	
	100.0	100.0			100.0	

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

HOTELS AND OTHER LODGING (SIC 70)

Occupational Mix in San Francisco

	Percent
Managers and officers	5.6
Professional occupations (accountants, analysts, etc.)	2.1
Technical occupations (programmers, etc.)	0.1
Sales workers	0.9
Service occupations (guards, etc.)	64.8
Production occupations	7.7
Administrative support and clerical occupations	18.7

Source: California Employment Development Department, Occupations in Selected Industries, San Francisco.

HOTELS AND OTHER LODGING (SIC 70)

Factors Affecting Growth

-- Business travel and the continued importance of face-to-face meeting.

-- Tourism and the driving forces behind tourism, particularly the affluent elderly.

-- Growing transactional nature of the economy, which necessitates meetings.

-- Growth in size and number of conventions.

-- Development of small, fashionable, liveable hotels reversing the mass standardized trend.

-- Destinations: San Francisco is one of the great destinations on the planet.

-- Over supply and high prices in hotel industry generally are leading to some consolidation.

Locational Trends

-- Airport or downtown.

AMUSEMENT AND RECREATION (SIC 79)

Employment

(Thousands)

	United States	California	San Francisco
1973	534.7	68.1	2.9
1974	553.5	70.2	3.0
1975	596.8	72.9	3.5
1976	636.8	76.9	3.6
1977	665.7	80.7	3.7
1978	708.4	87.5	4.0
1979	712.0	91.5	3.6
1980	763.5	94.1	3.5*
1981	783.6	97.4	4.1
1982	799.2	100.1	4.0
1983	817.7	104.0	4.2
1984	801.1	109.8	4.8
1985 (est.)	805.0	110.5	4.8

Employment Growth

(Annual Average Growth Rates)

	United States	California	San Francisco
1974-80	5.2	4.7	2.7
1981-85	1.1	3.2	6.5

Sources: U.S.: Bureau of Labor Statistics, Employment and Earnings
California: Employment Development Department,
Wage & Salary Employment
San Francisco: Employment Development Department,
Wage & Salary Employment

*EDD changes data recording from average annual to December of each year for all subsequent years.

AMUSEMENT AND RECREATION (SIC 79)

Structure of Business: Establishments by Size

(Percent Distribution by Size of Establishment)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	85.3	83.4	84.6	86.7	84.3	77.6
20-49	10.7	10.9	12.1	9.4	10.4	10.3
50-99	2.8	3.8	2.1	2.6	3.5	7.5
100-249	0.9	1.4	1.0	1.0	1.2	3.7
250-499	0.2	0.4	0.2	0.2	0.3	0.9
500+	0.1	0.1	----	0.1	0.3	----
	100.0	100.0	100.0	100.0	100.0	100.0

(Percent Distribution by Number of Employees)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	32.9	26.8			21.5	
20-49	25.3	22.4			21.7	
50-99	14.3	16.9	n/a		16.1	n/a
100-249	10.0	14.1			11.8	
250-499	6.3	7.9			7.3	
500+	11.2	11.9			21.6	
	100.0	100.0			100.0	

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

AMUSEMENT AND RECREATION (SIC 79)

Occupational Mix in San Francisco

	Percent
Managers and officers	7.8
Professional occupations (accountants, analysts, etc.)	37.7
Technical occupations (programmers, etc.)	0.6
Sales workers	1.0
Service occupations (guards, etc.)	28.1
Production occupations	12.4
Administrative support and clerical occupations	12.4

Source: California Employment Development Department, Occupations in Selected Industries, San Francisco.

AMUSEMENT AND RECREATION (SIC 79)

Factors Affecting Growth

-- The young baby boom fueled much of the growth in 1980.

-- Change in orientation of households as they age.

-- Increasing affluence of two-income households may offset reduction in teenagers.

Locational Trends

-- Growth in site-specific facilities associated with particular features.

FINANCE

BANKS (SIC 60)

FORECAST

Employment Growth (in thousands)

	United States	San Francisco
1973	1,178.4	25.2
1980	1,570.6	37.4
1985	1,704.0	35.9
1990	1,773.0	36.0-36.8
1995	1,845.0	36.5-38.1
2000	1,920.0	37.5-40.0

Employment Growth (average annual rate)

	United States	San Francisco
1974-80	4.2	5.5
1981-85	1.6	-0.8
1986-2000	0.8	0.3-0.7

BANKS (SIC 60)

RATIONALE FOR THE FORECAST

U.S. Outlook

Nearing the end of major shifts in banking:

- Consolidation rather than proliferation of branches
- Importance of strong capital base for major players
- Growth in electronic transactions
- Greater portion of transactions done in nonbanks.

Major new forces:

- Check truncation
- Major effort to reduce white-collar labor

San Francisco Outlook

Changes in headquarter roles:

- Crocker/Wells consolidation
- Wells' growing interest in south state: dual headquarters
- Major effort to reduce costs at Bank of America
- Potential takeover of BofA
- Foreign bank headquarters in Los Angeles

Changes in regional markets:

- Consolidation of medium-sized banks, local/regional headquarters functions emerge

BANKS (SIC 60)

Employment
(Thousands)

	United States	California	San Francisco
1973	1,178.4		25.2
1974	1,248.8		27.3
1975	1,273.9		28.0
1976	1,309.8		29.1
1977	13,567		30.3
1978	1,423.1		32.7
1979	1,498.5		34.9
1980	1,570.6		37.4*
1981	1,627.6		40.4
1982	1,655.5		40.2
1983	1,663.4		38.8
1984	1,676.2		37.9
1985	1,704 (e)		35.9

Employment Growth
(Annual Average Growth Rates)

	United States	California	San Francisco
1974-80	4.2		5.5
1981-85	1.6		-0.8

Sources: U.S.: Bureau of Labor Statistics, Employment and Earnings
California: Employment Development Department, Wage & Salary Employment
San Francisco: Employment Development Department, Wage & Salary Employment

*EDD changes data recording from average annual to December of each year for all subsequent years.

BANKS (SIC 60)

Structure of Business: Establishments by Size

(Percent Distribution by Size of Establishment)

Employment Size	1973 U.S.	1973 Calif.	1973 San Francisco	1983 U.S.	1983 Calif.	1983 San Francisco
1-19	33.9	44.3	49.0	69.3	56.6	48.2
20-49	26.8	18.6	9.8	20.1	33.9	32.4
50-99	9.9	14.8	15.7	6.6	6.1	6.6
100-249	5.7	10.7	3.9	2.8	2.3	5.3
250-499	1.9	5.1	5.9	0.7	0.6	2.8
500+	1.8	6.5	15.7	0.5	0.5	4.7
	100.0	100.0	100.0	100.0	100.0	100.0

(Percent Distribution by Number of Employees)

Employment Size	1973 U.S.	1973 Calif.	1973 San Francisco	1983 U.S.	1983 Calif.	1983 San Francisco
1-19	7.8	1.7		20.0	18.1	
20-49	13.2	3.2		19.6	28.9	
50-99	4.1	5.5	n/a	14.5	11.8	n/a
100-249	14.5	9.0		13.2	9.9	
250-499	10.9	9.2		7.7	6.4	
500+	42.5	71.4		25.0	24.9	
	100.0	100.0		100.0	100.0	

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

BANKS (SIC 60)

Occupational Mix in San Francisco

	Percent
Managers and officers	11.4
Professional occupations (accountants, analysts, etc.)	13.2
Technical occupations (programmers, etc.)	1.6
Sales workers	0.1
Service occupations (guards, etc.)	0.3
Production occupations	0.4
Administrative support and clerical occupations	73.0

Source: California Employment Development Department, Occupations in Selected Industries, San Francisco.

BANKS (SIC 60)

Factors Affecting Growth

Driving factors:

- -- Deregulation of banking functions and fewer restrictions in interstate activities
- -- New technology: ATMs, networks, home banking, point-of-sale terminals, improved communications links, easier access to databases
- -- New competitors: other financial institutions and foreign banks
- -- More sophisticated consumers
- -- Inflation, which forced businesses and households to look for alternate savings and investment outlets.

Impacts:

- -- Wider range of products and services offered
- -- Concentration among bigger players of central bank functions
- -- Decentralization of basic consumer access
- -- Fuzzy boundaries among financial services institutions
- -- Businesses increasingly bypass banks and go directly to credit markets.

Locational Trends

- -- Increasing role of international markets. This new business has been captured by New York (all aspects of international finance) and Los Angeles (primarily Pacific Rim based transactions). San Francisco may not have lost many international banks through movement to Los Angeles (see "Business Relocations Out of San Francisco Mayor's Office of Housing and Economic Development," June 1986, pp. 6), but San Francisco has not captured its share of this new activity.
- -- Increasing role of regional banks. Major regional banking centers have emerged in cities such as Houston, Miami, Chicago, Atlanta, Seattle, and St. Louis. These regional banks have been able to compete with national banks in New York. San Francisco historically has had strong regional banks, but its rate of growth has not been as great as Los Angeles.

- Reevaluation of downtown headquarters. Desire to keep a downtown prestigious building for headquarters (cathedrals of capitalism) as well as the desire to maintain rents of downtown office space because of the bank's equity in such ventures. But offset by the rising cost of office space and lack of available space of suitable configuration and the desire of banks to have access to the lower cost pink collar second wage earners in the metropolitan fringe. This has led to a selling off of buildings and leasing back executive space and the creation of back office functions in the metropolitan fringe.
- Restructuring of branch networks. The growth in ATMs has led to the end of the branching proliferation while new communication and database technologies have produced the sectoral centralization of such functions as loan processing.

OTHER CREDIT AGENCIES (SIC 61)

FORECAST

Employment Growth (in thousands)

	United States	San Francisco
1973	417.4	4.3
1980	569.8	4.8
1985	748.0	6.0
1990	845.0	6.2-6.4
1995	956.0	6.5-6.8
2000	1,080.0	6.8-7.2
1995		

Employment Growth (average annual rate)

	United States	San Francisco
1974-80	4.5	2.8
1981-85	5.6	4.6
1986-95	2.5	0.8-1.2

OTHER CREDIT AGENCIES (SIC 61)

RATIONALE FOR THE FORECAST

-- Slowdown in basic demand for homes as household formation rates begin to decline.

-- Marked slowdown in growth as competition with banks and nonbanks intensifies.

-- Consolidation of existing S&Ls lead to more efficient employment utilization.

-- San Francisco retains important role in secondary mortgage markets.

OTHER CREDIT AGENCIES (SIC 61)

(including Savings and Loans)

Employment

(Thousands)

	United States	California	San Francisco
1973	417.4		4.3
1974	430.6		4.5
1975	432.0		4.7
1976	447.9		5.1
1977	477.7		4.6
1978	516.2		5.1
1979	554.0		5.0
1980	569.8		4.8*
1981	582.5		5.3
1982	582.8		5.0
1983	630.8		5.6
1984	697.7		6.0
1985	748.0 (p)		6.0

Employment Growth

(Annual Average Growth Rates)

	United States	California	San Francisco
1974-80	4.5		2.8
1981-85	4.4		4.6

Sources: U.S.: Bureau of Labor Statistics, Employment and Earnings
California: Employment Development Department, Wage & Salary Employment
San Francisco: Employment Development Department, Wage & Salary Employment

*EDD changes data recording from average annual to December of each year for all subsequent years.

OTHER CREDIT AGENCIES (SIC 61)

Structure of Business: Establishments by Size

(Percent Distribution by Size of Establishment)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	78.7	85.4	84.2	90.0	89.0	80.7
20-49	12.3	8.8	7.9	6.6	7.5	11.7
50-99	4.6	2.9	3.7	2.1	2.0	4.1
100-249	3.0	2.0	4.2	1.0	.1	3.2
250-499	0.8	0.6	----	0.2	0.3	0.3
500+	0.6	0.3	----	0.1	0.1	----
	100.0	100.0	100.0	100.0	100.0	100.0

(Percent Distribution by Number of Employees)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	40.3	24.1		40.8	40.2	
20-49	19.7	16.9		18.7	18.2	
50-99	13.9	12.0	n/a	13.5	11.4	n/a
100-249	14.6	19.3		13.5	13.4	
250-499	7.2	12.2		6.4	6.3 (e)	
500+	4.3	15.5		7.1	10.5	
	100.0	100.0		100.0	100.0	

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

OTHER CREDIT AGENCIES (SIC 61)

Occupational Mix in San Francisco

	Percent
Managers and officers	18.2
Professional occupations (accountants, analysts, etc.)	6.6
Technical occupations (programmers, etc.)	0.3
Sales workers	0.7
Service occupations (guards, etc.)	0.5
Production occupations	0.5
Administrative support and clerical occupations	73.2

Source: California Employment Development Department, Occupations in Selected Industries, San Francisco.

OTHER CREDIT AGENCIES (SIC 61)

Factors Affecting Growth

- Coming of age of the baby-boom generation intensifies housing demand.
- The end of interest rate ceilings and floating rates has made mortgage market much more competitive market.
- Competition has led to a consolidation of S&Ls in California and to new entrants in S&L mortgage lending (out of state banks and nonbanks as owners of S&Ls).

Locational Trends

- The role of San Francisco as a regional money center has enhanced its attractiveness for secondary mortage market.
- S&Ls have been moving to where the action is:
    - Headquarters are in southern California or in the maturing suburbs.
    - New branches are in the suburbs or the smaller communities experiencing rapid growth in new homes.

SECURITY/COMMODITY BROKERS (SIC 62)

FORECAST

Employment Growth (in thousands)

	United States	San Francisco
1973	192.0	4.7
1980	227.4	6.2
1985	353.0	9.4
1990	410.0	11.3-11.5
1995	453.0	13.0-13.5
2000	512.0	15.3-16.2

Employment Growth (average annual rate)

	United States	San Francisco
1974-80	2.4	3.0
1981-85	9.2	8.7
1986-95	2.5	3.3-3.7

SECURITY/COMMODITY BROKERS (SIC 62)

RATIONALE FOR THE FORECAST

- The major burst of growth associated with the freeing of U.S. financial markets is over.
- There will be increasing competition from large, well-financed, full-service firms (for example, Sears, American Express).
- Large banks and insurance companies will be more aggressive in going after individual savings.
- There will be more standardization of products.
- San Francisco will continue to have major advantage because of location of key institutions here (for example, Pacific Stock Exhange, Federal Reserve, secondary mortgage market makers, etc.).

SECURITY/COMMODITY BROKERS (SIC 62)

Employment

(Thousands)

	United States	California	San Francisco
1973	192.0		4.7
1974	173.5		4.1
1975	169.5		3.9
1976	176.4		4.1
1977	181.8		4.3
1978	188.8		4.5
1979	204.2		5.0
1980	227.4		6.2*
1981	259.0		6.5
1982	273.9		6.9
1983	309.0		8.3
1984	339.7		8.7
1985	353.0 (p)		9.4

Employment Growth

(Annual Average Growth Rates)

	United States	California	San Francisco
1974-80	2.4		3.0
1981-85	9.2	8.7	

Sources: U.S.: Bureau of Labor Statistics, Employment and Earnings
California: Employment Development Department,
Wage & Salary Employment
San Francisco: Employment Development Department,
Wage & Salary Employment

*EDD changes data recording from average annual to December of each year for all subsequent years.

SECURITY/COMMODITY BROKERS (SIC 62)

Structure of Business:
Establishments by Size

(Percent Distribution by Size of Establishment)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	79.1	75.9	69.6	82.8	81.9	80.0
20-49	12.1	14.2	13.6	10.9	12.0	6.8
50-99	4.5	5.0	8.7	3.8	4.0	7.5
100-249	3.0	3.6	5.6	1.7	1.7	4.7
250-499	0.7	0.7	1.9	0.5	0.2	0.3
500+	0.6	0.6	0.6	0.3	0.2	0.7
	100.0	100.0	100.0	100.0	100.0	100.0

(Percent Distribution by Number of Employees)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	16.0	16.1		19.0	22.0	
20-49	15.2	19.4		18.6	28.0	
50-99	12.8	15.0	n/a	14.4	18.4	n/a
100-249	19.3	23.3		14.2	18.2	
250-499	10.4	10.4		9.3	4.8	
500+	26.3	15.8		24.5	8.6	
	100.0	100.0		100.0	100.0	

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

SECURITY/COMMODITY BROKERS (SIC 62)

Occupational Mix in San Francisco

	Percent
Managers and officers	8.8
Professional occupations (accountants, analysts, etc.)	9.2
Technical occupations (programmers, etc.)	0.9
Sales workers	38.9
Service occupations (guards, etc.)	----
Production occupations	0.5
Administrative support and clerical occupations	42.3

Source: California Employment Development Department, Occupations in Selected Industries, San Francisco.

SECURITY/COMMODITY BROKERS (SIC 62)

Factors Affecting Growth

- Deregulation of financial services.
- The lowering of capital gains tax to 20%.
- The rapid expansion in security markets.
- The growth in IRAs and other forms of individualized investment opportunities.
- The proliferation of financial instruments available to individual, including futures, options, mutual fund.
- Technologies that permit the dissemination of information cheaply in printed or electronic form.

Locational Trends

- The health of the San Francisco-based Pacific Stock Exchange.
- The prominent role of financial services in San Francisco and the regional nature of the market.

INSURANCE (SIC 63-4)

FORECAST

Employment Growth (in thousands)

	United States	San Francisco
1973	1,374.0	23.3
1980	1,676.1	29.1
1985	1,830.0	20.1*
1990	2,000.0	20.4-20.8
1995	2,185.0	21.2-22.1
2000	2,390.0	22.6-24.0

*Change in coverage in 1983

Employment Growth (average annual rate)

	United States	San Francisco
1974-80	2.9	2.9
1981-85	1.8	-3.2**
1986-95	1.8	0.2-1.2

**Adjusted for change in coverage

INSURANCE (SIC 63-4)

RATIONALE FOR THE FORECAST

U.S. Outlook

- Growth in the United States as a whole should be slightly faster than household formation as insurance coverage expands with increasing affluence and business expansion.
- New office technologies will continue to enhance the productivity of clerical workers in storing and retrieving records.

San Francisco Outlook

- San Francisco will experience some modest growth in employment over the next decade reflecting regional activities of insurance companies in the Bay Area. The key advantage of San Francisco is the finance center in the city which attracts central office functions of insurance firms (finance, investing, legal, advertising, etc.).

INSURANCE (SIC 63-4)

Employment
(Thousands)

	United States	California	San Francisco
1973	1,374.0		23.3
1974			23.3
1975			23.4
1976			23.4
1977			24.5
1978			26.3
1979			27.7
1980	1,676.1		29.1*
1981			28.2
1982			25.9
1983			21.4
1984			20.4
1985 (est.)			20.1

Employment Growth
(Annual Average Growth Rates)

	United States	California	San Francisco
1974-80	2.9	3.9	2.9
1981-85	1.8	1.4	-3.7**

*EDD changes recording data from average annual to December of each year for all subsequent years

**Adjusted for changes in coverage

Sources: U.S.: Bureau of Labor Statistics, Employment and Earnings
California: Employment Development Department, Wage & Salary Employment
San Francisco: Employment Development Department, Wage & Salary Employment

INSURANCE (SIC 63-4)

Structure of Business: Establishments by Size

(Percent Distribution by Size of Establishment)

Employment Size	1973 U.S.	1973 Calif.	1973 San Francisco	1983 U.S.	1983 Calif.	1983 San Francisco
1-19		87.4	77.2	90.0	88.3	77.4
20-49		6.9	11.1	6.3	6.8	12.7
50-99		2.9	5.0	2.0	2.8	4.8
100-249		1.9	4.1	1.1	1.4	3.6
250-499		0.4	1.7	0.3	0.4	0.8
500+		0.5	0.9	0.3	0.3	0.7
		100.0	100.0	100.0	100.0	100.0

(Percent Distribution by Number of Employees)

Employment Size	1973 U.S.	1973 Calif.	1973 San Francisco	1983 U.S.	1983 Calif.	1983 San Francisco
1-19				25.7	25.0	
20-49				14.3	15.4	
50-99				10.3	14.2	
100-249				12.5	15.7	
250-499				9.2	9.3	
500+				28.0	20.4	
				100.0	100.0	

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

INSURANCE (SIC 63-4)

Occupational Mix in San Francisco

	Percent	
	Insurers	Brokers
Managers and officers	16.4	14.9
Professional occupations (accountants, analysts, etc.)	28.9	15.6
Technical occupations (programmers, etc.)	0.4	4.3
Sales workers	0.7	12.8
Service occupations (guards, etc.)	0.7	----
Production occupations	0.7	0.1
Administrative support and clerical occupations	52.6	52.3

Source: California Employment Development Department, Occupations in Selected Industries, San Francisco.

INSURANCE (SIC 63-4)

Factors Affecting Growth

- Competition with other financial services/investments; reassesement of the value of full-life policies.
- Expansion of sales outlets to compete with other investment opportunities.
- More complex structuring of casualty business with new court rulings, tort legislation, and liability crisis.
- Impact of inflation offsetting scale of insurance and investment incentives.
- Impact of data and communications technologies on back office functions.

Locational Trends

- Impact of communication technologies on decentralization of back office functions.
- Customer service and claims can be handled from remote locations.
- Good growth in areas where businesses and population are growing rapidly.

BUSINESS AND PROFESSIONAL SERVICES

BUSINESS SERVICES (SIC 73)

FORECAST

Employment Growth (in thousands)

	United States	San Francisco
1973	1,934.5	21.6
1980	3,092.0	39.6
1985	4,453.0	47.9
1990	5,417.8	56.3-57.4
1995	6,591.5	66.3-68.9
2000	8,019.6	78.0-82.6

Employment Growth (average annual rate)

		United States	San Francisco
	1974-80	6.9	9.1
	1981-85	7.6	3.2
Trend Forecast	1986-2000	4.0	3.3-3.7

BUSINESS SERVICES (SIC 73)

Employment Growth Breakdown

Category	United States				San Francisco			
	Thousands			Average Annual Growth (Percent)	Thousands			Average Annual Growth (Percent)
	1985	2000	Net Gain		1985	2000	Net Gain	
731 Advertising	190.2	296.3	106.1	3.0	3.3	5.1	1.8	3.0
732 Credit Reporting	85.0	98.7	13.7	1.0	0.5	0.6	0.1	1.0
733 Mailing and Reproduction	175.0	363.8	188.8	5.0	3.4	7.1	3.7	5.0
734 Services to Building	650.0	874.8	224.8	2.0	6.3	7.5	1.2	1.2
735 News Syndicates	7.0	12.6	5.6	4.0	0.2	0.4	0.2	4.0
736 Personnel Supply	850.0	1,424.0	574.0	3.5	11.4	15.3	3.9	2.0
737 Computer and DP	520.0	1,649.5	1,129.5	8.0	4.6	11.0	6.4	6.0
739 Miscellaneous	1,975.8	3,558.3	1,582.5	4.0	18.2	32.8	14.6	4.0
Total Business Services	4,453.0	8,278.0	3,825.0	4.2	47.9	79.8	31.9	3.5

BUSINESS SERVICES (SIC 73)

RATIONALE FOR THE FORECAST

U.S. Outlook

- Continued strong growth in business services overall although not as great as the 1970s.
- Credit Reporting (SIC 732) will be relatively flat as functions are consolidated.
- Services to buildings (SIC 734) will flatten off as office constructions boom peaks out.
- Advertising growth will be steady but unspectacular as broadcast revenues level off.
- Strong growth in Mailing and Stenographic--not in traditional steno services and commercial photography but in new services such as desktop publishing and high-tech copy shops.
- Growth in Personnel Supply (SIC 736) in selected markets as firms continue shift to temporary work as a means of maintaining flexibility.
- Very strong growth in Computer and Data Processing Services (SIC 737). Not in traditional timesharing and data-entry functions, which will decline, but in software and new information services, databases, teleservices, and so forth.
- Very strong growth in certain aspects of miscellaneous services (SIC 739) such as management consulting, R&D laboratories, and business services n.e.c. New types of services--information brokers and consultants of various types.

San Francisco Outlook

- San Francisco's growth rate in business services fell to half the national average in the early 1980s.
- Growth will exceed previous average over next ten years as San Francisco will create new service enterprises.

-- Very strong growth in new mailing reproduction services--particularly direct mail and desktop publishing centers providing economies of scale in reproduction of reports, journals, books, and so forth. Small businesses and the artistic sector will fuel strong growth in this area.

-- Strong growth in computer and data processing services, particularly software and new information services. However, not as strong as national level because San Francisco does not have close ties to hardware developers.

-- Very strong growth in the miscellaneous business sector, in particular management consulting and miscellaneous n.e.c. where a wide variety of agents, brokers, facilitators, negotiators, mediators will develop roles.

-- Much slower growth in services to buildings and personnel supply as new building levels off and the overall San Francisco employment starts to plateau.

BUSINESS SERVICES (SIC 73)

SUMMARY ANALYSIS

Employment
(Thousands)

	United States	California	San Francisco
1973	1,934.5	247.2	21.6
1974	2,027.4	260.8	22.6
1975	2,041.9	269.0	24.1
1976	2,173.5	290.6	27.3
1977	2,357.2	323.8	28.7
1978	2,627.2	373.4	32.2
1979	2,905.9	424.5	36.7
1980	3,092.0	456.9	41.0*
1981	3,257.5	476.1	46.4
1982	3,286.0	472.5	39.1
1983	3,539.4	516.6	44.3
1984	4,075.6	606.5	45.9
1985	4,453.0	639.9	47.9

Employment Growth
(Annual Average Growth Rates)

	United States	California	San Francisco
1973-80	6.9	9.2	9.1
1981-85	7.6	7.0	3.2

*EDD changes data recording from average annual to December of each year for all subsequent years.

BUSINESS SERVICES (SIC 73)

Structure of Business: Business Services by Establishment Size

(Percent Distribution by Size of Establishment)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	84.0	85.1	79.5	86.7	86.8	83.5
20-49	9.3	8.8	10.7	7.6	7.6	8.2
50-99	3.5	3.1	4.7	3.0	3.0	4.2
100-249	2.2	2.1	3.7	1.9	1.9	3.0
250-499	0.7	0.7	0.9	0.5	0.5	0.9
500-1000	0.3	0.2	0.5	0.2	0.2	0.2
1000+	----	----	----	0.1	0.05	0.05
	100.0	100.0	100.0	100.0	100.0	100.0

(Percent Distribution by Number of Employees)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	23.5	25.5		24.6	24.3	
20-49	16.1	16.2		15.8	16.1	
50-99	13.7	13.0	n/a	14.3	14.3	n/a
100-249	19.0	19.3		19.8	20.1	
250-499	12.7	14.0		11.4	11.0	
500-1000	14.9	11.9		7.1	7.3	
1000+	----	----		7.0	6.7	
	100.0	100.0		100.0	100.0	

BUSINESS SERVICES (SIC 73)

Business Services: Employment Share by Category

(Percent)

Category	United States		California		San Francisco	
	1973	1983	1973	1983	1973	1983
Total Employment (in thousands)	(1,934.5)	(3,539.4)	(347.2)	(516.6)	(21.6)	(44.3)
731 Advertising	5.9	4.8	5.3	3.0	6.9	6.9
7311 Advertising Agencies	(4.2)	(3.6)	(3.2)	(2.2)	(5.7)	(6.1)
7312 Outdoor Advertising	(0.6)	(0.3)	(0.7)	(0.2)	(0.3)	----
7313 Radio/TV Publishers' Reps	(0.5)	(0.5)	(0.2)	(0.3)	(0.6)	(0.5)
7319 Advertising, n.e.c.	(0.6)	(0.4)	(1.1)	(0.3)	(0.3)	(0.3)
732 Credit Reporting and Collection	3.6	2.1	3.2	1.8	2.8	1.1
733 Mailing Reproduction and Stenographic	3.4	4.1	3.9	5.0	4.2	7.0
7331 Direct Mail Advertising	(1.8)	(1.5)	(1.7)	(1.5)	(1.6)	(1.4)
7332 Blue Printing and Photocopying	(0.8)	(0.6)	(1.3)	(0.9)	(1.8)	(1.8)
7333 Commercial Art and Photography	----	(1.6)	----	(1.5)	----	(2.5)
7339 Steno and Rep., n.e.c.	(0.8)	(0.8)	(0.9)	(1.1)	(0.8)	(1.3)
734 Services to Buildings	18.9	15.7	15.5	11.3	14.9	13.1
7341 Window Cleaning	(0.6)	(0.2)	----	----	----	----
7342 Disinfecting and Exterminating	(2.0)	(1.5)	(2.4)	(1.4)	(1.1)	(0.5)
7349 Building Maintenance	(16.4)	(13.5)	(13.0)	(9.8)	(13.9)	(12.6)
735 News Syndicates	0.3	0.2	0.2	0.1	0.6	0.4

Business Services: Employment Share by Category (continued)

(Percent)

Category	United States 1973	United States 1983	California 1973	California 1983	San Francisco 1973	San Francisco 1983
736 Personnel Supply Services	3.4	17.8	4.5	21.1	5.0	23.9
7361 Employment Agencies		(3.7)		(5.8)		(7.5)
7362 Temporary Help		(13.2)		(14.7)		(15.8)
7369 Personnel Supply, n.e.c.		(0.9)		(0.6)		(0.6)
737 Computer and Data Processing	----	11.7	----	13.4	----	9.7
7372 Computer Programming & Software		(3.9)		(5.3)		(3.3)
7374 DP Services		(6.0)		(6.6)		(5.7)
7379 Computer Related, n.e.c.		(1.4)		(1.5)		(0.6)
739 Miscellaneous Business Services	63.4	43.6	66.2	44.1	65.2	37.9
7391 R&D Laboratories	(4.2)	(4.9)	(4.8)	(4.7)	(0.8)	(2.2)
7392 Management and PR	(17.6)	(11.3)	(18.1)	(11.8)	(19.9)	(11.6)
7393 Detective and Protective	(10.9)	(10.2)	(9.3)	(10.1)	(16.3)	(10.3)
7394 Equipment Rental and Leasing	(4.4)	(3.8)	(5.5)		(6.1)	(3.9)
7395 Photofinishing Laboratories	(2.5)	(2.2)	(3.0)	----	----	----
7396 Trading Stamp Services	(0.3)	(0.2)	(0.2)	----	----	----
7397 Commercial Testing Labs	(101)	(1.0)	(1.0)	(1.2)	(0.5)	(0.6)
7398 Temporary Help Services	(11.0)	n/a	(11.9)	n/a	(10.6)	n/a
7399 Business Services, n.e.c.	(11.5)	(8.9)	(12.4)	(10.2)	(9.2)	(8.3)

BUSINESS SERVICES: ADVERTISING (SIC 731)

Employment

(Thousands)

	United States	California	San Francisco
1973	122.5	12.5	1.7
1974	123.8		
1975	122.2		
1976	124.9		
1977	131.5		
1978	139.9		
1979	145.9		
1980	153.0		
1981	156.0		
1982	160.7		
1983	169.0	15.0	2.5
1984	183.3		
1985 (est.)	190.2		

Employment Growth

(Annual Average Growth Rates)

	United States	California	San Francisco
1974-80	3.2		
1981-85	4.4		

Sources: U.S.: Bureau of Labor Statistics, Employment and Earnings
California: Employment Development Department,
Wage & Salary Employment
San Francisco: Employment Development Department,
Wage & Salary Employment

BUSINESS SERVICES: ADVERTISING (SIC 731)

Structure of Business: Establishments by Size

(Percent Distribution by Size of Establishment)

Employment Size	1973 U.S.	1973 Calif.	1973 San Francisco	1983 U.S.	1983 Calif.	1983 San Francisco
1-19	87.9	87.4	84.7	90.0	91.5	87.4
20-49	8.0	7.4	6.5	6.6	5.1	5.7
50-99	2.4	3.3	6.5	2.0	2.1	4.6
100-249	1.2	1.6	2.4	1.0	1.0	1.1
250-499	0.2	1.2	----	0.3	0.2	1.1
500+	0.3	----	----	0.2	----	----
	100.0	100.0	100.0	100.0	100.0	100.0

(Percent Distribution by Number of Employees)

Employment Size	1973 U.S.	1973 Calif.	1973 San Francisco	1983 U.S.	1983 Calif.	1983 San Francisco
1-19				35.2		
20-49				17.7		
50-99	n/a	n/a	n/a	12.2	n/a	n/a
100-249				14.0		
250-499				8.6		
500+				12.3		
				100.0		

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

BUSINESS SERVICES: ADVERTISING (SIC 731)

Occupational Mix in San Francisco

	Percent
Managers and officers	14.4
Professional occupations (accountants, analysts, etc.)	21.0
Technical occupations (programmers, etc.)	0.1
Sales workers	12.7
Service occupations (guards, etc.)	0.2
Production occupations	9.7
Administrative support and clerical occupations	41.9

Source: California Employment Development Department, Occupations in Selected Industries, San Francisco.

BUSINESS SERVICES: ADVERTISING (SIC 731)

Factors Affecting Growth

- Strong historical growth associated with network TV, broadcast revenues. There are signals that this is leveling off--for example, network sports coverage has peaked out.
- Nontariff barriers are acting against international expansion of advertising services.
- Desktop publishing technology may start affecting small end of business.
- Strong growth expected in direct mail advertising.

Locational Trends

- National accounts are centered in New York.
- Tendency for regional firms to seek downtown locations.

BUSINESS SERVICES: CREDIT REPORTING AND COLLECTION (SIC 732)

Employment

(Thousands)

	United States	CBP California	CBP San Francisco
1973	80.8	7.7	0.7
1974	79.6		
1975	78.1		
1976	78.6		
1977	79.7		
1978	78.2		
1979	78.0		
1980	75.1		
1981	75.0		
1982	74.6		
1983	75.4	8.9	0.4
1984	80.0		
1985	85.0		

Employment Growth

(Annual Average Growth Rates)

	United States	California	San Francisco
1974-80	-1.0		
1981-85	2.5		

Sources: U.S.: Bureau of Labor Statistics, Employment and Earnings
California: Employment Development Department,
Wage & Salary Employment
San Francisco: Employment Development Department,
Wage & Salary Employment

BUSINESS SERVICES: CREDIT REPORTING AND COLLECTION (SIC 732)

Structure of Business: Establishments by Size

(Percent Distribution by Size of Establishment)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	87.6	83.5	76.3	87.6	82.4	64.0
20-49	8.6	11.7	13.2	9.6	13.8	32.0
50-99	2.2	2.6	7.9	2.0	2.2	4.0
100-249	1.3	1.6	2.6	0.8	1.5	----
250-499	0.2	0.4	----	n/a	1.0	----
500+	0.1	0.2	----	n/a	0.2	----
	100.0	100.0	100.0	100.0	100.0	100.0

(Percent Distribution by Number of Employees)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19				n/a		
20-49				27.2		
50-99	n/a	n/a	n/a	10.6	n/a	n/a
100-249						
250-499						
500+				n/a		
				100.0		

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

BUSINESS SERVICES: CREDIT REPORTING AND COLLECTION (SIC 732)

Occupational Mix in San Francisco

	Percent
Managers and officers	10.0
Professional occupations (accountants, analysts, etc.)	0.8
Technical occupations (programmers, etc.)	1.6
Sales workers	7.8
Service occupations (guards, etc.)	0.9
Production occupations	0.7
Administrative support and clerical occupations	78.2

Source: California Employment Development Department, Occupations in Selected Industries, San Francisco.

BUSINESS SERVICES: CREDIT REPORTING AND COLLECTION (SIC 732)

Factors Affecting Growth

- Automation in the industry has caused a machine/people trade-off.
- Automation and network technology and bringing credit reporting inside the firm (back office).
- Consolidation in credit reporting networks (TRW, etc.).
- Growth may be occurring elsewhere in SIC codes--for example, miscellaneous 7399 may hold credit card verification activities.
- Electronic Document Interchange (EDI) and other emerging communications technologies are minimizing role for small independents.
- Prospects not good for growth in employment in independents.
- But good back office potential within firms.

Locational Trends

- National network development has been aided by developments in telecommunications.
- These activities are aspatial; no need to be near clients once contracts have been acquired.

BUSINESS SERVICES: MAILING REPRODUCTION AND STENOGRAPHIC (SIC 733)

Employment

(Thousands)

	United States	CBP California	San Francisco
1973	86.0	9.3	1.0
1974	87.6		
1975	86.0		
1976	88.0		
1977	92.6		
1978	104.8		
1979	113.3		
1980	120.0		
1981	128.8		
1982	135.0		
1983	144.0	24.6	2.5
1984	165.5		
1985 (est.)	175.0		

Employment Growth

(Annual Average Growth Rates)

	United States	California	San Francisco
1973-80	4.9		
1981-85	7.8		

Sources: U.S.: Bureau of Labor Statistics, Employment and Earnings
California: Employment Development Department, Wage & Salary Employment
San Francisco: Employment Development Department, Wage & Salary Employment

BUSINESS SERVICES: MAILING REPRODUCTION AND STENOGRAPHIC (SIC 733)

Structure of Business: Establishments by Size

(Percent Distribution by Size of Establishment)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	86.8	88.4	84.3	92.2	92.5	90.7
20-49	8.7	7.8	8.6	5.3	4.9	4.2
50-99	3.1	2.3	2.9	1.5	1.6	3.5
100-249	1.2	1.1	4.3	0.7	0.7	3.5
250-499	0.2	0.1	----	0.1	0.2	1.5
500+	----	----	----	----	----	----
	100.0	100.0	100.0	100.0	100.0	100.0

(Percent Distribution by Number of Employees)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19				45.1		
20-49				20.2		
50-99	n/a	n/a	n/a	13.6	n/a	n/a
100-249				12.8		
250-499				----		
500+				----		
				100.0		

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

BUSINESS SERVICES: MAILING REPRODUCTION AND STENOGRAPHIC (SIC 733)

Occupational Mix
in San Francisco

	Percent
Managers and officers	10.0
Professional occupations (accountants, analysts, etc.)	7.8
Technical occupations (programmers, etc.)	0.1
Sales workers	4.1
Service occupations (guards, etc.)	0.6
Production occupations	28.2
Administrative support and clerical occupations	49.2

Source: California Employment Development Department, Occupations in Selected Industries, San Francisco.

BUSINESS SERVICES: MAILING REPRODUCTION AND STENOGRAPHIC (SIC 733)

Factors Affecting Growth

-- Growth in mailing list and direct mail advertising was fueled by marketing emphasis and growth of other small enterprises.

-- Stenographic activities include word processing that was formerly contracted out from small enterprise but now is being brought in-house.

-- Declining microcomputer costs and increasing capability are internalizing many functions into small firms.

-- Declining costs and increasing capability of laser printers, copiers, and so forth, may be reducing need for conventional reproduction services.

-- Continued growth in direct mail and stenographic is less likely in the long run as some functions related to PC become internalized.

-- However, new types of businesses in the area of desktop publishing and reproduction may emerge giving economies of scale for certain specialized new technology and providing new services to other small businesses.

Locational Trends

-- Primarily small jobbing shops serving other businesses, heavy concentration in proximity to market.

-- Very small enterprises close to other office sector.

BUSINESS SERVICES: SERVICES TO BUILDINGS (SIC 734)

Employment
(Thousands)

	United States	CBP California	San Francisco
1973	363.9	36.8	3.7
1974	393.8		
1975	390.6		
1976	405.1		
1977	422.3		
1978	451.7		
1979	487.0		
1980	495.0		
1981	511.0		
1982	523.6		
1983	555.2	55.3	4.8
1984	608.9		
1985 (est.)	635.0		

Employment Growth
(Annual Average Growth Rates)

	United States	California	San Francisco
1973-80	4.5		
1981-85	5.1		

Sources: U.S.: Bureau of Labor Statistics, Employment and Earnings
California: Employment Development Department, Wage & Salary Employment
San Francisco: Employment Development Department, Wage & Salary Employment

BUSINESS SERVICES: SERVICES TO BUILDINGS (SIC 734)

Structure of Business: Establishments by Size

(Percent Distribution by Size of Establishment)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	83.8	87.5	7.28	86.9	89.0	79.6
20-49	9.0	7.7	12.0	7.5	6.9	8.0
50-99	3.5	2.3	5.4	2.6	2.1	3.5
100-249	2.5	1.8	5.4	2.0	1.3	3.5
250-499	0.8	0.5	3.3	0.6	0.5	4.4
500+	0.4	0.2	1.1	0.3	0.2	0.8
	100.0	100.0	100.0	100.0	100.0	100.0

(Percent Distribution by Number of Employees)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19				24.0		
20-49				13.9		
50-99	n/a	n/a	n/a	11.3	n/a	n/a
100-249				19.1		
250-499				13.6		
500+				18.0		
				100.0		

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

BUSINESS SERVICES: SERVICES TO BUILDINGS (SIC 734)

Occupational Mix
in San Francisco

	Percent
Managers and officers	2.5
Professional occupations (accountants, analysts, etc.)	0.4
Technical occupations (programmers, etc.)	----
Sales workers	0.8
Service occupations (guards, etc.)	94/9
Production occupations	8.5
Administrative support and clerical occupations	2.9

Source: California Employment Development Department, Occupations in Selected Industries, San Francisco.

BUSINESS SERVICES: SERVICES TO BUILDINGS (SIC 734)

Factors Affecting Growth

-- New buildings = more maintenance.

-- Low wage and limited advancement, high turnover industry.

-- Recent immigrant entry-level jobs.

-- Large historic growth fueled by office construction boom and subcontracting of maintenance and cleaning by business and government.

-- Growth will be tied to increases in new developed office space.

-- Unless there is some technological breakthrough, then employment will grow at same rate as new building does.

Locational Trends

-- Activities centered where the buildings are.

-- But, employees of these firms don't take up space themselves; they are absorbed into other people's space.

BUSINESS SERVICES: PERSONNEL SUPPLY SERVICES (SIC 736)*

Employment
(Thousands)

	United States	California	San Francisco
1973	255.7	10.7	1.2
1974	266.2		
1975	251.0		
1976	303.5		
1977	370.4		
1978	454.3		
1979	526.5		
1980	563.4		
1981	607.1		
1982	555.4		
1983	634.4	103.5	8.7
1984	828.0		
1985 (est.)	853.0		

Employment Growth
(Annual Average Growth Rates)

	United States	California	San Francisco
1973-80	12.0		
1981-85	8.6		

Sources: U.S.: Bureau of Labor Statistics, Employment and Earnings
California: Employment Development Department, Wage & Salary Employment
San Francisco: Employment Development Department, Wage & Salary Employment

*NB: Changes in classification occurred with Temporary Help Services moving from SIC 7398 to SIC 7362. See earlier summary.

BUSINESS SERVICES: PERSONNEL SUPPLY SERVICES (SIC 736)*

Structure of Business: Establishments by Size

(Percent Distribution by Size of Establishment)

Employment Size	1973			1983		
	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19	89.6	87.6	83.6	69.5	63.2	63.2
20-49	6.5	6.6	7.5	12.0	14.5	13.9
50-99	2.0	2.2	3.0	9.3	10.2	10.0
100-249	1.5	2.2	3.0	7.1	9.9	10.5
250-499	0.4	1.2	1.5	1.5	1.6	1.9
500+	----	----	----	0.5	0.1	0.5
	100.0	100.0	100.0	100.0	100.0	100.0

(Percent Distribution by Number of Employees)

Employment Size	1973			1983		
	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19				8.9		
20-49				11.6		
50-99	n/a	n/a	n/a	19.7	n/a	n/a
100-249				31.7		
250-499				15.3		
500+				12.8		
				100.0		

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

BUSINESS SERVICES: PERSONNEL SUPPLY SERVICES (SIC 736)*

Occupational Mix in San Francisco

	Percent
Managers and officers	3.1
Professional occupations (accountants, analysts, etc.)	13.7
Technical occupations (programmers, etc.)	5.1
Sales occupations	1.3
Service occupations (guards, etc.)	6.8
Production occupations	0.2
Administrative support and clerical occupations	69.7

Source: California Employment Development Department, Occupations in Selected Industries, San Francisco.

BUSINESS SERVICES: PERSONNEL SUPPLY SERVICES (SIC 736)*

Factors Affecting Growth

-- Instability in the economy gives incentive to make work temporary, especially in large organizations. It lowers benefits cost of employees, gives more flexibility, removes hassle of firing, and limits unionization. The impact of recession made companies adopt lean and mean attitude.

-- Principally office work (clerical and accounting) 40% but also more specialized temporary help in medical care (nursing, LPNs, etc.) 30%, and, to a lesser extent, industrial (10%).

-- Market is dominated by large, multiestablishment companies, and it is competitive.

-- Very closely limited both nationally and regionally to growth in general levels of employment. Seems to be strongest post-recovery and then levels off--lags with the business cycle.

-- National growth is expected to be 5% pa to 1995, faster than the 4% for business services.

-- A much lower forecast is expected for San Francisco because overall employment growth is anticipated to level off. Growth in the medical market--nursing, home care, and so forth--will be hurt by competition from other organizations such as visiting nurses and hospitals themselves providing home care.

-- As the labor market gets leaner in the 1990s, may get less demand.

Locational Trends

-- Downtown office oriented plus other office concentration.

-- Piggybacks on basic office employers, principally large ones.

-- Although employers of large numbers of people, their employees are not actually there--they are absorbed into other space.

BUSINESS SERVICES: COMPUTER AND DATA PROCESSING SERVICES (SIC 737)

Employment

(Thousands)

	United States	California	San Francisco
1973	119.5	n/a	n/a
1974	134.6		
1975	143.0		
1976	159.4		
1977	186.6		
1978	223.8		
1979	270.8		
1980	304.3		
1981	336.6		
1982	364.7		
1983	415.8	65.8	3.5
1984	473.7		
1985 (est.)	520.0		

Employment Growth

(Annual Average Growth Rates)

	United States	California	San Francisco
1973-80	14.3		
1981-85	11.3		

Sources: U.S.: Bureau of Labor Statistics, Employment and Earnings
California: Employment Development Department, Wage & Salary Employment
San Francisco: Employment Development Department, Wage & Salary Employment

BUSINESS SERVICES: COMPUTER AND DATA PROCESSING SERVICES (SIC 737)

Structure of Business Establishments by Size

(Percent Distribution by Size of Establishment)

Employment Size	1973 U.S.	1973 Calif.	1973 San Francisco	1983 U.S.	1983 Calif.	1983 San Francisco
1-19				84.0	85.1	83.8
20-49				9.2	9.2	10.1
50-99		n/a		3.8	3.1	3.5
100-249				2.3	1.8	1.8
250-499				0.5	0.5	0.4
500+				0.3	0.4	0.4
				100.0	100.0	100.0

(Percent Distribution by Number of Employees)

Employment Size	1973 U.S.	1973 Calif.	1973 San Francisco	1983 U.S.	1983 Calif.	1983 San Francisco
1-19				20.0		
20-49				15.7		
50-99	n/a	n/a	n/a	14.2	n/a	n/a
100-249				18.9		
250-499				9.3		
500+				21.8		
				100.0		

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

BUSINESS SERVICES: COMPUTER AND DATA PROCESSING SERVICES (SIC 737)

Occupational Mix in San Francisco

	Percent
Managers and officers	12.9
Professional occupations (accountants, analysts, etc.)	13.0
Technical occupations (programmers, etc.)	33.6
Sales workers	3.8
Service occupations (guards, etc.)	1.3
Production occupations	0.8
Administrative support and clerical occupations	34.6

Source: California Employment Development Department, Occupations in Selected Industries, San Francisco.

BUSINESS SERVICES: COMPUTER AND DATA PROCESSING SERVICES (SIC 737)

Factors Affecting Growth

-- Data processing services were big growers in the timesharing era.

-- Conventional timesharing and computer services leveling off in the age of PCs, Lotus, network technologies, and so forth.

-- Bigger growth recently in the programming side.

-- Data entry at source has affected data-entry job shops.

-- Microcomputer proliferation and networking will erode timesharing.

-- Channel systems and other electronic developments in EDI will likely slow the rate of demand for DP services.

-- However, new enterprises will grow up to fill the void left by timesharing decline--for example, teleservices and electronic publishing.

-- Substantial growth nationally in software development.

Locational Trends

-- No need to be downtown.

-- Except for selling services and transporting physical documents, no need to be close to customers.

LEGAL SERVICES (SIC 81)

FORECAST

Employment Growth (in thousands)

	United States	San Francisco
1973	294.9	5.2
1980	497.7	10.1*
1985	700.0	14.7
1990	831.0	17.9-18.2
1995	987.0	21.6-22.4
2000	1,172.0	25.8-27.3

Employment Growth (average annual rate)

	United States	San Francisco
1974-80	7.8	9.9
1981-85	7.1	7.4
1986-95	3.5	2.8-4.2

*EDD changes recording data from average annual to December of each year for all subsequent years

LEGAL SERVICES (SIC 81)

RATIONALE FOR THE FORECAST

-- Leveling off in law school classes, a fall in new applications to law schools.

-- More lawyers are pursuing nonlegal careers.

-- Advantages are growing for the larger law firms--like those centered in San Francisco--because of new uses of electronic technology, increasing utilization of paralegals, and trends toward specialization.

-- The court system--California Supreme Court, Federal District Courts--will keep San Francisco as a regional legal center.

-- Special Bay Area business interests will foster the legal center in San Francisco--international trade, finance, venture capital, patents, and start-ups.

LEGAL SERVICES (SIC 81)

Employment

(Thousands)

	United States	California	San Francisco
1973	294.9	34.0	5.2
1974	324.9	37.0	5.7
1975	340.3	39.9	6.3
1976	363.3	43.0	6.9
1977	393.9	47.3	7.5
1978	426.6	53.2	8.1
1979	459.9	58.8	9.0
1980	497.7	63.6	10.3
1981	532.1	70.5	11.1
1982	565.3	75.4	11.5
1983	602.1	78.0	12.5
1984	649.7	----	13.7
1985 (est.)	700.0	----	14.7

Employment Growth

(Annual Average Growth Rates)

	United States	California	San Francisco
1973-80	7.8	9.4	9.9
1981-85	7.1	7.0	7.4

Sources: U.S.: Bureau of Labor Statistics, Employment and Earnings
California: Census Bureau, County Business Patterns
San Francisco: Employment Development Department,
Wage & Salary Employment

LEGAL SERVICES (SIC 81)

Structure of Business: Establishments by Size

(Percent Distribution by Size of Establishment)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19				96.4	96.1	93.5
20-49				2.6	2.7	3.6
50-99				0.6	0.8	1.6
100-249				0.3	0.3	0.9
250-499				0.1	0.1	0.3
500+				----	----	0.1
				100.0	100.0	100.0

(Percent Distribution by Number of Employees)

	1973			1983		
Employment Size	U.S.	Calif.	San Francisco	U.S.	Calif.	San Francisco
1-19				59.1	56.6	
20-49				15.7	17.6	
50-99				8.8	11.2	
100-249				9.2	9.0	
250-499				5.3	4.0	
500+				1.9	1.6	
				100.0	100.0	

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

LEGAL SERVICES (SIC 81)

Occupational Mix in San Francisco

	Percent
Managers and officers	4.3
Professional occupations (accountants, analysts, etc.)	40.2
Technical occupations (programmers, etc.)	0.1
Sales workers	----
Service occupations (guards, etc.)	0.6
Production occupations	----
Administrative support and clerical occupations	54.8

Source: California Employment Development Department, Occupations in Selected Industries, San Francisco.

LEGAL SERVICES (SIC 81)

Factors Affecting Growth

-- Explosion in size of law school classes in the 1960s and 1970s.

-- Business litigation and the liability crisis made U.S. business more conscious of being protected by their own lawyers.

-- Increase in government regulation and litigation over the "activists" legislation of the 1960s and 1970s.

-- Sustained increase in litigation by the general public.

-- Increasing affluence and inflation made the tax system more onerous to the American middle class.

Locational Trends

-- San Francisco emerged as a regional legal center; helped by the placement of the California Supreme Court and the Federal District court in the city.

-- The amenities in the city and the area are attractive to the professionals attracted to the industry.

MISCELLANEOUS SERVICES (SIC 89)

(Includes Engineering,, Architectural,
(Accounting, and Bookkeeping Services

FORECAST

Employment Growth (in thousands)

	United States	San Francisco
1973	684.2	15.8
1980	997.4	23.6*
1985	1,248.0	22.9
1990		
1995		

Employment Growth (average annual rate)

	United States	San Francisco
1974-80	5.5	5.0
1981-85	4.6	-0.6
1986-95	3.8	0.8

*EDD changes recording data from average annual to December of each year for all subsequent years

MISCELLANEOUS SERVICES: ENGINEERING/ARCHITECTURE (SIC 891)

(Accounts for about 50% of Total SIC 89)

Employment

(Annual Average Growth Rates)

	United States	San Francisco
1973-80	7.5	8.6
1981-85	6.0	3.0
1986-95	3.8	1.0

MISCELLANEOUS SERVICES: ENGINEERING/ARCHITECTURE (SIC 891)

RATIONALE FOR THE FORECAST

U.S. Outlook

-- Big firms will be affected by slowdown in major office buildings as growth of white-collar sector slows.

-- Tax law changes will slow real estate growth and shift focus of investment.

-- End of baby-boom impacts on new housing starts

-- Foreign projects will slow in face of new competition from countries such as Brazil, Korea, and Japan.

-- Continuing growth in infrastructure projects.

-- Continuing concern about environmental cleanup.

-- Strong home-building in short run.

-- Strong component of urban redevelopment.

San Francisco Outlook

-- Consolidation of Bechtel in short run and in longer run slow growth.

-- Restrictions from new zoning laws in San Francisco and surrounding bay counites.

-- Shift to consulting and away from design.

MISCELLANEOUS SERVICES: ACCOUNTING/BOOKKEEPING (SIC 893)

(Accounts for about 40% of Total SIC 89)

Employment
(Annual Average Growth Rates)

	United States	San Francisco
1973-80	6.0	3.0
1981-85	5.0	-1.0
1986-95	3.5	0.5

MISCELLANEOUS SERVICES: ACCOUNTING/BOOKKEEPING (SIC 893)

RATIONALE FOR THE FORECAST

U.S. Outlook

-- Accounting, auditing, tax questions for large U.S. companies should remain a steadily but slowly growing market.

-- Entrepreneurship and start-ups should continue current pace, keeping a steady demand for accounting and bookkeeping services.

-- Companies going directly to finance market with equities and securities should keep a strong demand for audits and accountants.

-- Technology should gradually slow demand for labor-intensive white-collar services, especially those dealing with bookkeeping and monitoring routine accounts.

-- Slow growth in basic auditing function.

-- Tax reform should cut dramatically growth in small-scale CPAs and tax advisory services--most dynamic part of market.

-- Trend toward consulting.

-- Need for regulated industry to monitor new subsidiaries.

San Francisco Outlook

-- Regional offices of Big 8 accounting firms likely to be in Los Angeles.

-- More satellite offices of Big 8 firms open in other Bay Area counties, thus major growth is likely to be in Santa Clara and Contra Costa counties.

-- San Francisco a mature market for smaller firms that will locate close to growing business markets and expanding affluent suburbs.

MISCELLANEOUS SERVICES (SIC 89)

Employment
(Thousands)

	United States	California	San Francisco
1973	684.2	----	15.8
1974	723.0	72.4	18.1
1975	723.5	72.8	20.3
1976	733.0	76.5	18.9
1977	786.8	83.3	19.4
1978	867.4	97.1	20.0
1979	940.7	108.8	20.1
1980	997.4	121.3	23.6*
1981	1,042.5	135.3	25.3
1982	1,053.2	146.7	26.3
1983	1,072.0	149.1	23.9
1984	1,158.1		23.6
1985 (est.)	1,248.0		22.9

Employment Growth
(Annual Average Growth Rates)

	United States	California	San Francisco
1973-80	5.5		5.0
1981-85	4.6		-0.6

Sources: U.S.: Bureau of Labor Statistics, Employment and Earnings
California: Employment Development Department,
County Business Patterns
San Francisco: Employment Development Department,
Wage & Salary Employment

MISCELLANEOUS SERVICES (SIC 89)

Structure of Business: Establishments by Size

(Percent Distribution by Size of Establishment)

Employment Size	1973 U.S.	1973 Calif.	1973 San Francisco	1983 U.S.	1983 Calif.	1983 San Francisco
1-19	90.7	91.5	85.2	93.5	94.2	87.3
20-49	6.4	5.7	9.1	4.4	3.9	7.9
50-99	1.7	1.4	3.2	1.2	1.1	1.8
100-249	0.9	1.0	2.2	0.6	0.6	2.4
250-499	0.2	0.3	0.3	0.2	0.1	0.3
500+	0.1	0.1	----	0.1	0.1	0.3
	100.0	100.0	100.0	100.0	100.0	100.0

(Percent Distribution by Number of Employees)

Employment Size	1973 U.S.	1973 Calif.	1973 San Francisco	1983 U.S.	1983 Calif.	1983 San Francisco
1-19	39.2	35.6		41.6	39.0	
20-49	19.0	15.7		15.8	13.7	
50-99	11.1	9.0	n/a	10.0	8.8	n/a
100-249	13.1	14.0		11.2	11.0	
250-499	7.1	8.9		6.6	6.1	
500+	10.5	16.8		14.8	21.4	
	100.0	100.0		100.0	100.0	

Source: Department of Commerce, Annual Survey of Manufacturers, County Business Patterns

MISCELLANEOUS SERVICES (SIC 89)

Occupational Mix in San Francisco

	Percent
Managers and officers	13.6
Professional occupations (accountants, analysts, etc.)	49.7
Technical occupations (programmers, etc.)	10.5
Sales workers	0.6
Service occupations (guards, etc.)	0.8
Production occupations	0.3
Administrative support and clerical occupations	24.5

Source: California Employment Development Department, *Occupations in Selected Industries*, San Francisco.

PART 3

MISSION BAY: OPTIONS AND OUTCOMES

MISSION BAY: OPTIONS AND OUTCOMES

This third and final part of the report translates the broader analysis of the strategic context and the outlook for specific businesses into options and outcomes for Mission Bay.

In this concluding part of the report, we identify:

1. Options

   -- The possible positioning of Mission Bay's office and R&D space within the context of its competitors in the Bay Area

   -- The advantages Mission Bay has over these competitors for specific classes of activity--business and professional services, small and medium-sized headquarters, back office, other support services, unique mixed commercial use tenants, and R&D.

2. Outcomes

   -- The likely range of employment in specific business groups that could be attracted to the Mission Bay development

   -- The impact of Mission Bay employment on diversifying the city's overall employment base.

MISSION BAY: OPTIONS

Mission Bay represents a unique opportunity for San Francisco as the last major site that presents potential for a unique form of mixed commercial use. The purpose of this "options" section is to identify the kinds of markets that Mission Bay might be positioned to serve, the competitors in those market niches, and the particular strengths of Mission Bay that would give its offices and R&D space a competitive advantage. The section focuses on two particular competitive factors--cost and location--relative to other sites in the Bay Area.

MISSION BAY: POSSIBLE POSITIONING

Mission Bay's office and R&D development has to make sense for the city and its people, the developers, and the market. It has not been conceived of as an alternative downtown core, nor is it feasible that office space be made available at below market prices. Somewhere in between is a range of potential market opportunities. The ultimate employment composition of Mission Bay will reflect the market's response to the final agreed upon development.

With this caveat in mind, Table 22 focuses on the cost component and identifies a range of competitive rent structures for office space. The purpose of these data is to identify the relative rental rates in locations that are viewed as realistic competitors for Mission Bay. In preparing this data series, we have endeavored to smooth out some of the short-term business cycle fluctuations in rental rates and represent the relative costs as an index against downtown San Francisco. The intent is to present the enduring relativities in the marketplace; however, it is clear that when certain downtown space reaches a particular dollar ceiling or floor, these relativities may be upset. For example, as the market declines, price compression is likely to occur as the relative rental rates get squeezed against the fixed cost at the low end of the market. Conversely, at the high end of the market cycle, prime downtown space can charge premium prices that may again alter the relativity of these rates. Nevertheless, these are the best estimates of enduring competitive relationships.*

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*We are indebted to Margaret Duskin, Senior Vice President of Cushman Wakefield, and her associates for their comments, additions, and revisions to our original market estimates.

Table 22

Bay Area Rent Structure

Relative Positioning of Mission Bay	Competitor	Rental Index
Prime Office	San Francisco Prime Downtown	100
	Palo Alto	90
	South of Market (Prime)	83
	Oakland Prime Downtown	83
	San Jose Downtown	83
	North Sunnyvale	83
	Van Ness Corridor	80
	San Jose Airport	80
	Walnut Creek (near BART)	77
Higher Quality Office	Sacramento (near Capitol)	73
	China Basin	66
	East San Jose	63
	South Sunnyvale	63
	Northeast San Jose	63
Medium Range	South of Market (Nonprime)	60
	Sierra Point, Brisbane	60
	Oyster Point, Brisbane	60
	Walnut Creek (other)	60
	Concord	60
	South San Jose	60
	Northwest San Jose	60
	San Ramon	53
Lower End	Pleasanton	53
	Fresno	41
	Fremont	37
	Sacramento (other)	35
	Outer Fringes of the Bay Area (Gilroy, Santa Rosa, Petaluma, Tracy, and Fairfield)	35

Source: IFTF, Cushman Wakefield.

For purposes of analysis, we have assumed that Mission Bay's office space could be positioned realistically anywhere on this range between 75% and 40% of prime downtown space. Similarly, R&D and light manufacturing space is likely to be between 40% and 25% of prime downtown office space. Perhaps the single most important opportunity for Mission Bay's employment base is the potential for unique configurations of physical space and commercial uses. For example, it is conceivable that a single tenant may be interested in occupying buildings that include headquarters, back office, packaging, or subassembly and distribution space in one complex. Such a tenant might occupy space across a wide spectrum of rental rates.

For the purposes of this analysis, the range of realistic alternatives is broken down into four subranges:

	Index
Higher quality office	60-75
Medium-range office space	50-60
Lower end office	40-50
Quality industrial/R&D	25-40

ANALYZING THE COMPETITION

In developing our forecasts for employment in Mission Bay, we have endeavored to place Mission Bay in its competitive context. Clearly, rent structures are important, but more broadly several key factors determine locational choices of firms: economics, preferences, interaction requirements, image, and inertia.

Economics. Cost is not everything. Indeed, companies may be more interested in reducing the uncertainty of cost increases rather than minimizing costs on a year-to-year basis. For example, decisions to completely relocate on a wholly owned site in the suburbs may be motivated by the desire to eliminate the variability of a volatile downtown market. Clearly, in the case of San Francisco, many companies were forced into reevaluating their locational choices when downtown rents reached the highs of the early 1980s. Paying $38 per square foot for a computer to sit on didn't seem to make sense; and the computer didn't really care where it was. However, most of the employees care. As housing costs get inflated and as commutes get longer and more frustrating because of congestion, the economics of suburban office location begin to look good to employees, too. The shift of office functions to Contra Costa and Alameda has been a function of both office and household economics.

Preferences. As functions become more footloose and as competing locations reach similar economic levels, the critical factors become the preferences of the decision makers. Executives may make locational decisions to minimize their commute or, conversely, to preserve downtown contact networks. They may seek locations for back offices that tap labor markets they prefer. These preferences may reflect personal biases rather than concrete economic or qualitative differences. Certain firms are continuing to demonstrate preferences for Contra Costa type locations even if rent and other economic factors are equal (for example, see Ron Blatman's Study of Corporate Relocation from San Francisco).

Interaction Requirements. Office functions are transactional in nature. However, the degree to which these transactions involve face-to-face contact outside the firm varies from company to company. Detailed empirical work by Gunter Gad* on face-to-face linkages in the city of Toronto in the late 1970s confirmed what is intuitively obvious: certain businesses--in particular, law firms, real estate companies, consultants, executive search firms, and brokers of various types--have the highest frequency of external face-to-face meetings, whereas offices of life insurance firms, oil companies, manufacturing firms, and town planning consultants!! had the lowest frequency of external face-to-face contact.

A key factor, however, is the degree to which firms can spatially explode their organizational structure and still effectively coordinate activity using telecommunications. Data processing and order processing are the most common examples of effective decentralization because they are highly routinized functions and the required face-to-face linkages are low. However, other examples exist where the coordination of activity within the firm requires frequent and close face-to-face exchange between organizational subunits. For example, in the high design content apparel firm, there is close interaction among design, marketing, and production staff. Similarly, research and development prototype assembly requires close cooperation between research, engineering, and marketing groups. In the corporate headquarters setting, office functions such as marketing, planning, and human relations require much higher levels of intraorganizational communications than do data processing or order entry work.

Gunter Gad, "Face to Face Linkages and Office Decentralization Potentials: A Study of Toronto," in P. W. Daniels' Spatial Patterns of Office Growth and Location. London: Wiley, 1981.

Image. Locations, particularly of headquarters, are symbolically as well as practically important. Being in San Francisco evokes a different image than being in an anonymous suburb. A prestigous location is a function of the floor space, the quality of the building, the prestige of the address, and the image of the city in which it is situated. A Big 8 accounting firm may seek the best of all of these factors, but a second order accounting firm may value the floor space and the city more than the specific address. Mission Bay is part of San Francisco and carries with it that prestige--but so does South of Market and the Van Ness Corridor.

Inertia. An often overlooked reality is the "myth of movement." The vast majority of headquarters offices and plants do not move between metropolitan areas. The reason that certain regions grow more than others is governed much more by differential growth rates and the birth and death of firms than it is by interregional movement. The back-office shifts in the Bay Area, just like the movement of headquarters from Manhattan to the metropolitan fringe, are intraregional movements--where firms do not have to surrender access to existing labor pools, contact networks, and advanced corporate support services. This study has identified factors underlying differential growth rates between Los Angeles and San Francisco. Absolute movement of corporate headquarters is relatively rare--except in cases of merger. It is differential growth that will have a much larger impact. Similarly, within the Bay Area, San Francisco's major back-office generators--Pac Bell, Bank of America, and Chevron--already have relocated many of the functions that can be readily moved.

There are three implications of this discussion. First, even if competitively priced, Mission Bay will not necessarily get all the back-office jobs that might still be considering leaving, because there are other preferences that override the economic considerations. Second, there are certain potential tenants with particular interaction needs, organizational structures, and space configuration requirements who would be uniquely suited to a Mission Bay location. Third, the bleeding of back-office jobs to the metropolitan fringe is slowing down as the biggest firms have moved the easiest components to move. Mission Bay's role in the future may be to present an alternative choice in a firm's decision to reconfigure its organizational structure in spatial terms: an alternative that still is in San Francisco.

MISSION BAY: ADVANTAGES OF THE SITE

In terms of its locational attributes, Mission Bay has several competitive strengths over other San Francisco and Bay Area sites. Table 23 compares Mission Bay's competitive strengths against a range of five Bay Area competitors--Prime South of Market, Contra Costa, Silicon Valley, San Mateo, and South Alameda--for five different classes of activity--business and professional services, small to medium-sized headquarters, back office, other support services, unique mixed space tenants, and R&D.

Mission Bay has several key advantages for office uses over the more suburban locations: in providing access to downtown specialized financial, legal, and business services; providing access to downtown clients; access to transportation; opportunities for complementary activities; and competitive costs. The only really salient advantage for R&D activity is its proximity to UCSF and Berkeley and to the city's business population for software applications.

Perhaps the strongest competitive characteristic of Mission Bay over other San Francisco locations is the capacity for the development to accommodate individual tenants with a need for both unique configurations of space (for example, combined headquarters, back office, and distribution space) and relative proximity to downtown San Francisco. The development also has advantages for those functions that still require some face-to-face meeting with other parts of the organization or with clients in downtown but that do not need prime downtown space.

Table 23

Mission Bay's Competitive Strengths

	Competitor				
Use	Prime South of Market	Contra Costa	Silicon Valley	San Mateo County	South Alameda
Business and Professional Services	Potential for lower rents for support services. Housing on site.	Proximity to downtown clients. Proximity to airport.	Proximity to clients (non-high-tech).	Proximity to downtown clients.	Proximity to downtown San Francisco clients.
Small-Medium Sized Headquarters	Potential for new "build-to-suit" headquarters.	Proximity to advanced corporate services. Proximity to international airport.	Proximity to financial community, legal, and business services.	Proximity to financial community and business services.	Proximity to financial community, legal, and business services.
Back Office	Larger floor areas. Lower rents. Better parking. Tied into peninsula and MUNI transit.	Proximity to company headquarters. Ability to tap San Francisco entry-level labor market. Tied into peninsula and MUNI transit.	Ability to tap San Francisco entry-level labor market. Existing front office in downtown.	Proximity to existing front office. Competitive rents.	Proximity to front office.
Other Support Services	Sales/service functions with distribution and office. Better parking. Freeway access.	Sales/service closer to downtown.	Close to concentration of client.	Close to heavy concentration of clients.	Close to concentration of clients.

. . . . . continued

Table 23 (concluded)

Mission Bay's Competitive Strengths

	Competitor				
Use	Prime South of Market	Contra Costa	Silicon Valley	San Mateo County	South Alameda
Unique, Mixed Space Tenants	Capacity to accommodate mixed commercial use tenants in innovative floor space configurations.	Proximity to downtown services, amenities. Proximity to airports.	Proximity to downtown services.	Proximity to downtown services, amenities.	Proximity to downtown services.
R&D	No real R&D space in South of Market.	Proximity to UCSF, Berkeley, and Stanford.	Proximity to UCSF and Berkeley.	Proximity to UCSF and Berkeley.	Proximity to UCSF.

EMPLOYMENT AND OCCUPATIONAL OPPORTUNITIES

It is impossible to examine every conceivable type of job that could locate in Mission Bay over the build out of the project (which for the purposes of this analysis we have assumed to be 2000 although the likely completion would be between 2000 and 2010). The possibilities for sizes and ranges of business by type of development in Mission Bay give too large a selection. Instead of trying to be comprehensive, we have selected businesses that are likely to flourish at the national, regional, and city level and examined the likely employment outlook for each of those businesses. We then identified those segments that are likely to be best suited for drawing on the unique advantages of Mission Bay.

Table 24 summarizes our forecast for Mission Bay employment in specific business segments. For each segment, we have identified a likely range of total employment in the city through the year 2000, made a realistic assessment of a Mission Bay employment range within that business segment, and described the type of activities within that business segment that will occur in Mission Bay. Table 24 is a listing of opportunities by specific business sector. It is meant to identify the range of opportunities available. It is not meant to be strictly additive. In other words, the development could not support the maximum in each and every category. Rather, these ranges represent a lower and upper limit if a reasonable marketing effort was made to attract these kinds of uses. It also is not meant to be comprehensive in that the analysis does not include some sectors that may provide jobs--retail, repair services, and so forth. And it is based on the assumption that an attempt will be made to draw varying types of users from many sectors. It is best to see this table as illustrative of the type of space uses possible in Mission Bay.

Even though it is only a partial look at employment opportunities, there are several important conclusions that can be drawn from Table 24. In these selected businesses, there is a full range of employment opportunities, spanning both the higher and middle-level office space market and the lower end office and R&D uses.

Table 24

Employment Opportunities in Mission Bay

1. Higher Quality Office Space
(Rental Index: 60% to 75% of Prime Downtown)

Business Sector	Jobs in San Francisco by 2000	Range of Employment in Mission Bay	Likely Types of Activities in Mission Bay
Legal	25,800-27,300	2,000-3,000	-- Small and medium-sized firms serving area and regional clients. -- Possible emergence of back office functions for larger specialized downtown firms.
Miscellaneous Services	25,000-26,700	500-800	-- Firms focusing on regional business in architectural, engineering, and environmental impact studies. -- Medium-sized accounting and bookkeeping firms serving a regional clientele. -- Small CPA and tax consultants.
Finance	82,200-87,400	300-500	-- Regional headquarters for medium-sized local banks and S&Ls. -- Regional headquarters for second-tier foreign or out-of-state banks that want a foothold in northern California. -- Venture capital headquarters.
Wholesale Trade	36,200-37,000	200-300	-- Offices for U.S. import-export brokers. -- Offices for foreign trade representatives or foreign sales offices.
Business Services (partial: includes advertising, personnel supply, and part of miscellaneous business services)	25,800-38,000	1,750-2,350	-- Medium-sized firms doing business with downtown and Bay Area customers in a variety of business services including advertising, management consulting, design, agent or broker, personnel supply.

Table 24 (continued)

Employment Opportunities in Mission Bay

2. Medium-Range Office Space
(Rental Index: 50% to 60% of Prime Downtown)

Business Sector	Jobs in San Francisco by 2000	Range of Employment in Mission Bay	Likely Types of Activities in Mission Bay
Transportation, Utilities, Communications, Mining, and Manufacturing	Not applicable	600-1,000	-- Regional or national headquarters of rapidly growing Bay Area-based firms. -- Regional headquarters for a national firm. -- Alternate site for specific corporate functions of a large company--finance, advertising, planning.
Finance	82,200-87,400	1,350-2,050	-- Software design and modification. -- Central control functions (like credit/loan approval) for a group of bank or S&L branches. -- Security brokers and sales departments.
Business Services (partial: includes part of data processing, news syndicates)	11,050-11,700	400-600	-- Software design and modification, maintaining existing systems. -- Services providing news to diversified clientele.
Research and Development	3,740-4,380	200-300	-- R&D activities in software development serving San Francisco clients.
Communications	16,900-18,300	50-150	-- Firms providing new communication services such as teleservices and video conferencing.
Wholesale	36,200-37,000	200-400	-- Local or regional sales offices for national firms.

Table 24 (continued)

Employment Opportunities in Mission Bay

3. Lower End Office Market
(Rental Index: 40% to 50% of Prime Downtown)

Business Sector	Jobs in San Francisco by 2000	Range of Employment in Mission Bay	Likely Types of Activities in Mission Bay
Finance, Medical, Utilities, Government	Not available	2,500-4,700	-- Record keeping. -- Claims processing. -- Customer inquiries.
Retail	Not applicable	600-950	-- Discount center outlets. -- Direct marketing.
Business Services (partial: includes part of data processing, mailing and reproduction, credit reporting, and miscellaneous buisness services)	30,648-32,500	3,150-4,850	-- New shops that do design, reproduction, and distribution of everything from mailers and newsletters to corporate brochures. -- Data processing services to big customers. -- Protection services. -- Equipment leasing/renting. -- Commercial testing. -- Travel/convention services. -- Telephone answering services.
Individual Proprietors	40,000-42,500	2,000-3,000	-- Individuals or partners in various activities like law, business services, consulting, word processing, design, and art.

Table 24 (concluded)

Employment Opportunities in Mission Bay

4. Quality Industrial or R&D
(Rental Index: 25% to 40% of Prime Downtown)

Business Sector	Jobs in San Francisco by 2000	Range of Employment in Mission Bay	Likely Types of Activities in Mission Bay
Manufacturing (partial: includes printing and apparel)	21,300-22,500	800-1,500	-- Printing and Graphics. -- Apparel.
Research and Development*	Not available	50-300	-- R&D activities in biotechnology and medical instrumentation.

*An additional 100-200 applications software R&D employees are indicated in medium-range office space on page 15. The biotechnology employment opportunities are limited because of severe competition, not only from other Bay Area locations but from well-eestablished state-sponsored biotechnology centers elsewhere in the United States.

Source: IFTF, based on California Employment Development Department historical data.

Another way of looking at the employment opportunities is to measure them against their impact on jobs in the rest of the city. Mission Bay can play four important roles in maintaining and diversifying San Francisco's economic base. First, the development can attract new businesses through its competitive advantages that would not otherwise locate in the city--for example, regional headquarters and research and development. Second, Mission Bay can prevent some loss of jobs to the suburbs by providing a competitive alternative within San Francisco. Third, Mission Bay can provide a location for San Francisco firms to consolidate their functions from inefficient space elsewhere in the city: lack of large floor plans has been an important factor behind many back-office relocations outside of the city. Fourth, the development can play a role in absorbing new growth in the city in those businesses that value the cost and locational attributes of Mission Bay. Using this classification, Table 24 defines the likely sources of the jobs outlined in Table 24. More than 60% of Mission Bay employment is likely to come from growth in businesses already flourishing in San Francisco and over 20% from businesses that are not currently in San Francisco. The rest of the jobs will come from preventing outflow to the suburbs or from freeing up space that is currently being inefficiently utilized.

Table 25

Sources for Employment in Mission Bay

	Employment Opportunities
Attraction of new businesses	1,400-2,600
Finance: regional headquarters	
central control functions	
Manufacturing: regional headquarters	
Retail: direct marketing	
Manufacturing: R&D activities	
Prevention of loss of jobs to suburbs	3,375-5,900
Transportation/communication/utilities	
Manufacturing/mining: back-office functions	
Finance: data processing	
claims processing	
customer service	
Manufacturing: light industry activities	
Consolidation of existing services in poorly used space	1,000-2,000
Finance/medical/utilities/government:	
record keeping, claims	
claims processing	
customer inquiries	
Absorption of new growth	10,875-16,250
Legal: small/medium-sized firms	
Miscellaneous professional services:	
regional professional firms	
Business services: advertising	
management consulting	
personnel supply	
computer maintenance	
credit reporting	
miscellaneous business services	
mailing and reproduction	
Wholesale: import/export brokers	
Finance: security dealers/brokers	
Individual proprietors:	

Source: IFTF

OCCUPATIONAL DISTRIBUTION OF MISSION BAY EMPLOYMENT

Tables 26 and 27 identify the occupational mix derived from the primary employment opportunities in the selected business opportunities. These employment opportunities noted here are heavily weighted toward white-collar occupations. This is because we have focused on those types of jobs that are most likely to be attracted to San Francisco's urban core in competition with other locations in an around the Bay Area. These jobs reflect San Francisco's strengths vis-a-vis other communities. They do create, though, a set of secondary jobs that are blue-collar in nature. These secondary jobs include many blue-collar jobs servicing the new office sector in Mission Bay including repair, delivery, protection, wholesale and retail trade, and public transportation. Some of these blue-collar activities will be provided by firms located inside of Mission Bay. A greater portion is likely to be provided by firms on the periphery: in the upper south of Market, Potrero Hill, or south of Sixteenth Street. The full impact on the city of San Francisco of Mission Bay can't be assessed without taking these neighboring effects into account.

Finally, the attraction of certain types of businesses to Mission Bay will free more low-cost, "under-the-freeway" type of space for the dynamic small printing and apparel companies that currently are thriving in the South of Market, Chinatown, and the Tenderloin. Thus, the development pattern of Mission Bay can have an important impact on the occupational pattern of employment developments elsewhere in the city.

Table 26

Occupational Outlook in Key Business Sectors

(Percent of Employment)

Occupations*	High-End Office Market	Mid-Range Office Market	Low-End Office Market	Quality Industrial
Managers and Officers	9.7	12.9	14.2	6.4
Professional Occupations	40.0	19.5	28.0	9.4
Technical Occupations	4.9	14.3	9.3	2.7
Sales Workers	1.6	8.2	5.3	4.2
Service Occupations	0.7	2.4	0.9	7.7
Production Occupations	0.5	3.7	3.6	54.2
Administrative Support and Clerical	42.6	39.0	38.7	15.4
	100.0	100.0	100.0	100.0

*This is exclusive of retail and service employment supporting the residential and commercial occupants of Mission Bay.

Source: IFTF, based on California Employment Development Department's Occupations in Selected Industries.

Table 27

Range of Employment by Occupational Mix in Key Business Sectors

Occupations*	High-End Office Market	Mid-Range Office Market	Low-End Office Market	Quality Industrial
Managers and Officers	461-674	361-580	1,172-1,917	54-115
Professional Occupations	1,900-2,780	546-877	2,310-3,780	80-169
Technical Occupations	233-341	400-644	767-1,255	23-49
Sales Workers	76-111	230-369	437-716	36-76
Service Occupations	33-49	67-108	74-122	65-139
Production Occupations	24-35	104-167	297-486	461-976
Administrative Support and Clerical	2,023-2,960	1,092-1,775	3,193-5,224	131-276

*This is exclusive of retail and service employment supporting the residential and commercial occupants of Mission Bay.

Source: IFTF, based on California Employment Development Department's Occupations in Selected Industries.